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PART I.

ORIGINAL COMMUNICATIONS.

ART. VIII.—*On Secondary Hemorrhage after Parturition.* By ALFRED H. M'CLINTOCK, M. D., F. R. C. S. I., Ex-Assistant of the Dublin Lying-in Hospital, Vice-President of the Dublin Obstetrical Society, &c.

THE uterine hemorrhage of pregnancy, and that which occurs within the first hour or two after delivery, are familiar to all accoucheurs, and their causes and treatment are described in every systematic treatise upon midwifery: not so, however, that species of uterine hemorrhage which forms the subject of this paper. It has received little notice, and from only a very few authors; yet it has many claims upon our attention. It is not unfrequent; it may prove dangerous or fatal; the causes that determine its production are various, and consequently the indications of treatment are less plain and simple than in the other kinds of flooding connected with pregnancy or childbirth. Moreover, the circumstances under which it occurs are gene-

rally such as to take the practitioner by surprise, and to create considerable alarm in the minds of the patient and her friends. Coming on, too, as it usually does, very unexpectedly, and at a time when all parties are perhaps beginning to indulge a feeling of satisfaction at her happy escape from the perils of childbirth, an attack of this kind is very much calculated to disturb their composure, and prove a source of great anxiety.

The object of this paper is to present, with some regard to order, and as concisely as possible, the results of my own experience and researches on this complication of the puerperal state. Although I can lay claim to no originality in the following remarks, still I am not without hope that good may be effected by bringing this subject under the notice of accoucheurs in a distinct but comprehensive manner.

It may be well to state, that by the term "Secondary Hemorrhage" I understand any profuse sanguineous discharge from the vagina, commencing after a patient has been six hours delivered, and within a month from this epoch[a]. The denomination "Menorrhagia lochialis" is employed very much in this sense by some writers, especially by Dr. Burns. I think, however, it should not be thus generically used, but should rather be restricted to the prolonged continuance of *red* lochial discharge; a sort of hemorrhage, it is true, but materially differing in its nature and treatment from that to which this paper relates.

For some days after mature delivery, the uterus freely permits the escape of blood, unless the conditions normally existing to provide against such an occurrence be strictly complied with. These conditions, upon which so much depends, are, the degree of contraction in the uterine fibres, and the state of

[a] This definition is in accordance with the rule laid down by Madame Lachappelle: "Après l'accouchement, le nom d'*hemorrhagie* doit être réservé à toute perte plus considérable que ne doivent être les lochies, et moins distante de l'état de couches que ne doit être le premier retour de l'évacuation menstruelle."—*Pratique des Accouchemens*, t. ii. p. 375.

the circulation. So nicely poised is the balance between these agencies, that a very slight disturbance may suffice to produce hemorrhage. If, for instance, the uterus relax, or be arrested in its contraction, or if the blood rush with unusual force into its vessels, under the influence of general vascular excitement, or from a local determination, or "molimen partiel," as Madame Lachapelle terms it, then, in any of these cases, the barriers to the escape of the vital fluid are overcome, and hemorrhage ensues. Hence also it follows, that a degree of contraction capable of resisting the escape of blood when the circulation is tranquil, may, in an opposite state of the vascular system, prove wholly inadequate[a]. "Hemorrhage and a well-contracted uterus," says Dr. Ingleby, "are by no means incompatible." The great facility with which blood escapes from the uterus, especially at this period, is the most prominent feature in its pathology, and ought never be forgotten. Three circumstances in the vascular structure of the organ undoubtedly conduce to give to it this peculiarity. One is the extraordinary size and number of the uterine veins, or sinuses, as they are very appropriately designated; the second is, the tendency of these to open by lateral foramina on the internal surface of the organ; and the third, the complete absence of valves in the venous system of the uterus.

I shall now proceed to enumerate the various *causes* that may give rise to secondary hemorrhage. They are very numerous.

I. Perhaps one of the most frequent is the presence of a portion of placenta in the uterus. This is generally the result of artificial removal of the after-birth, especially if the operator is incautious or timid; but it may happen in the most skilful hands, where the cause of detention has been morbid adhesion

[a] This fact, supported alike by reason and experience, is noticed by most practical writers. Dr. Gooch erroneously thought that hemorrhage coming on under these circumstances was "a peculiar form," and as such described it in an essay, for which he has been severely, but not unjustly, criticised.

of a very intimate nature. Before the writings of White, Osborne, and Joseph Clarke had effected a reformation in the mode of conducting the second stage of labour, and whilst practitioners were guided by precepts and rules now happily exploded, manual extraction of the placenta was a common occurrence, and, as a natural consequence, the complication we are now considering was not by any means so unfrequent as in the present day.

The occurrence of secondary hemorrhage is often regarded as a sort of *primâ facie* imputation upon the accoucheur in attendance, implying some mismanagement of the third stage of labour, or some want of prudence in the subsequent treatment. The prevalence of such an opinion may, perhaps, account for the silence of authors upon the subject. Without attempting to deny that this event is occasionally the result of ignorance or rashness, still no one can affirm that it is always so, no more than it could be said of convulsions, of ruptured uterus, or of any of the other casualties incident to labour. Secondary hemorrhage, then, may, and very commonly does arise without a shadow of blame being attributable to the attendant; and of this we shall furnish abundant evidence further on.

When, unfortunately, a piece of placenta is retained in the uterus, it seldom produces any untoward symptom before the third or fourth day. If it is not cast off by this time, a train of symptoms usually develope themselves, which, viewed in the aggregate, will admit of an easy interpretation. To give any minute or lengthened detail of them would be here out of place; I must only refer the reader to the works of Charles White, John Clarke, Ingleby, and John Ramsbotham, by all of whom they have been fully and very accurately described. The following quotation from the last-named author gives, in a small compass, a tolerably correct picture of the ordinary course of events in these cases:—"For the first day or two the patient suffers little other inconvenience than that which arises from the loss of blood, and the more frequent and the more violent

returns of the after-pains. The secretion of milk is occasionally established; but the act of suckling produces an increase of uterine pain. These temporary returns of pain at length terminate in uneasiness of a more settled and more permanent description, which insensibly increases in degree, until it assumes the character of a continued tenderness of the uterine tumour, which is temporarily increased by the pressure of the hand. The uterine tumour is generally found well contracted. After the lapse of a few days, the local uterine irritation is transferred to the system, which is evinced in the accession of rigor, restlessness, watchfulness, anxiety, and the future progress of febrile symptoms. The pulse becomes at first quickened, afterwards hurried; the skin is dry and hot, especially on the belly; the face, though generally pallid, appears occasionally flushed, as if under the influence of hectic fever; respiration is quickened, and soon becomes laboured; the head is attacked with pain, which is continually upon the increase, until it ends with delirium; (sometimes the pain in the head is described to be of the pulsatory kind, resembling the tick of a clock); the appearance of the tongue is variable; sometimes it is dry, white, and furred; at others, it is dry and red; the eye at first assumes a glossy, and afterwards a languid appearance; the stomach is nauseated, and rejects the fluids taken into it, which are quickly altered in appearance and taste; and if the secretion of milk has been established, it gradually declines, until at length it disappears."

I cannot agree with Baudelocque, nor with a recent French author, M. Jacquemier, that hemorrhage is the most common accompanying phenomenon and the source of greatest danger in retention of the placenta. What is most to be feared, I think, in these cases, is the supervention of uterine or crural phlebitis. At the same time I must observe, that there are numerous instances on record of a fatal termination having ensued from hemorrhage alone; many such are contained in the writings of Lamotte, Perfect, White, Ashwell, Ingleby, Lee, &c. The hemorrhage rarely comes on sooner than the

fourth or fifth day, and it may not do so until the second week, or even later: in fact, so long as a fragment of placenta remains in the uterine cavity, the patient can have no security against a recurrence of the sanguineous discharge. Its retention operates probably in more ways than one to produce this result. First, it may occasion a partial and temporary inertia of the uterine fibres; secondly, it may, by its bulk, mechanically prevent the due and sufficient contraction of these fibres; and thirdly, it may cause a greater or less determination of blood to the organ. The last two causes, perhaps, are generally the most operative; but still the other should not be entirely excluded from a share in the production of the flooding; and an admission of its influence may help to explain the intermitting character of the hemorrhagic attacks.

The period at which the decaying fragment of placenta may come away, and thus put an end to the recurring discharges of blood, is exceedingly variable. Sometimes it is deferred until the third week, or even later. Dr. Ingleby is of opinion, "that the retained portion may become so far identified with the lining membrane of the uterus as to render a distinct and perfect disunion impracticable." He recites a case where "the hemorrhage began on the third day after delivery, and, with the exception of a few short intermissions, continued during a period of five weeks, when it terminated in death. On inspecting the body, a tumour of rather florid colour, and the size of the largest walnut, was found firmly adherent to the sides of the fundus uteri, at its highest part; the lining membrane covered the greater portion of the mass, though not its centre, which was ragged, and vessels could be traced opening upon it."

In the following case there can be little doubt that the "hard substance" was a retained portion of the placenta, enveloped in coagulated blood. "I was sent for to a woman," says Chapman, "who was seized with a flooding at the end of six weeks after her delivery. When I came to make a proper

inquiry, I found the womb open enough to receive three fingers, and a hard substance bearing down. There was some pain, or rather an endeavour in nature to cast out this superfluous guest; but it was not of itself sufficient, and the woman must undoubtedly have flooded to death, without the assistance of the hand. By stretching out my fingers far asunder, I dilated the mouth of the womb much more than at first I found it, and then brought away a firm fleshy substance, in the form of a turkey's egg, and nearly of the same bigness. The woman was very weak, but by proper management she recovered." In the very next paragraph he informs us, that he "could give many instances of this kind;" so that he evidently did not regard it as a singular or uncommon case.

The following case I saw in the autumn of 1846, in consultation with a practitioner of this city. The patient, a stout healthy woman, was the wife of a butcher living in the neighbourhood of the Castle-market, and had been confined of her sixth child, seven days before my visit. The history I got was as follows: the child had presented with the feet, hemorrhage took place soon after its birth, and on introducing the hand for the placenta, this was found so intimately adherent to the uterus, as to render its removal difficult and incomplete, some portions remaining behind. She went on, however, most satisfactorily until the fifth day, when she had a sudden and profuse dash of hemorrhage, which recurred again and again at intervals. At the time of my visit (for I only saw her once), she was much blanched and nearly pulseless, but no discharge of blood was then going on. Late on the afternoon of the ninth day, there having been some loss in the interval, the hemorrhage broke out afresh with great violence, and before assistance could be obtained, she was a corpse. In this instance it is remarkable that the hemorrhage was the only untoward effect of the retention, no fever or local irritation having been induced by it. At the time of my seeing her she had a plentiful secretion of milk. I he-

sitate not to say, that this woman's life might have been saved by the timely use of the plug.

II. The retention of a coagulum of any size in the uterus, beyond the first few hours after delivery, is not apt to take place, as a very moderate degree of uterine action would be sufficient to expel it, or to prevent its formation. Should it occur, however,—and experience shows that it may,—there will be constant risk of hemorrhage so long as it remains in the uterine cavity. The immediate or exciting cause of the effusion in these cases is probably some accidental displacement of the clot, or excitement of the arterial system. A woman "had frequent discharges of blood from the uterus for the first *ten* days after delivery, until at length, the hemorrhage becoming profuse, and her strength much reduced, the hand was passed into the vagina, and the fingers introduced into the uterus, by which means some coagula were removed, and the discharge ceased."—(Collins.) A fatal case of secondary hemorrhage on the eighth day, apparently from retained clots, occurred in the practice of Madame Lachapelle. It was the patient's first accouchement, and she gave birth to twins. Immediately on the expulsion of the two-lobed placenta flooding took place in such excessive quantity, as to place her life in great danger for some hours. Notwithstanding this she progressed favourably until the eighth day, when, in attempting to get up, the hemorrhage recurred, and along with it there came away two fetid clots, which Madame Lachapelle considers were the cause of this fresh accession of bleeding. It was only by the liberal use of cold wet cloths, and injections of cold water, that the discharge was checked, but not before the vital powers had sustained a shock from which they could not recover. She died in the course of a few hours.

Dr. Burns remarks, that where the restoration of the uterus to the unimpregnated state does not go on regularly, "the cavity may be filled with blood, which forms a coagulum, and is expelled with fluid discharge. The womb," he continues,

" may remain thus stationary for a considerable time, and the coagula be successively expelled, with slight pains, and no small degree of hemorrhage. These symptoms very much resemble those produced by the retention of part of the placenta, and cannot easily be, with certainty, distinguished from them. We have, however, less of the fetid smell, and we never observe any shreds, or portion of the placenta, to be expelled, whilst the coagulum, if entire, has exactly the shape of the uterine cavity."

III. There are some considerations which favour the supposition that, on rare occasions, secondary hemorrhage is the consequence solely of relaxation of the uterine fibres. This is a point on which we can hardly hope to obtain direct evidence, and in the absence of such we must take collateral proof. Thus experience shows that, for several days after parturition, the uterus occasionally admits of distention to a great extent, and this too under a degree of force which cannot be considerable. Ashwell once found the uterus to measure twelve inches, in a patient who died of uterine hemorrhage on the eleventh day from her confinement. I myself have recorded a case, in which the uterus on the seventh day became distended from internal hemorrhage, so that the fundus reached midway between the pubis and umbilicus. Ingleby details an instance in which, so late as the nineteenth day after delivery, the womb was emptied of a large quantity of putrid blood. Dr. Collins narrates a case where the introduction of the hand into the uterus was practised on the fourth day after parturition, for the suppression of hemorrhage; and the late Dr. Hamilton, of Edinburgh, used to relate, in his lectures, a case of a woman who was seized, five hours after a natural labour, with flooding, in consequence of relaxation of the uterus, induced, as he believed, by the influence of tobacco, which she very imprudently had smoked.

From the numerous and strongly marked sympathies of the uterus, it is reasonable to conclude, that for some days, at all

events, after parturition there may be an interruption of its contractile function, through the influence of deep mental impressions, or certain bodily derangements. Thus Perfect tells us of a lady, who some weeks after delivery was seized with a violent flooding, caused, he says, "by waking in a hurry from a frightful dream." Though the cases may be very few in which secondary hemorrhage results from simple relaxation of the uterus, still it can barely admit of question, but that this is often an efficient co-operative cause in producing or keeping up the sanguineous flux. In the case I am about to quote from Dr. Collins' Report, it would almost seem that the outbreak of hemorrhage was solely due to uterine inertia. "This woman had considerable hemorrhage on the fourth day, which had continued, more or less, for three hours before we were called. The uterus was distended, but contracted under firm pressure, and the discharge subsided. In less than an hour it returned, when the hand was passed, some clots removed, and cold applied, which arrested the discharge; an opiate was then given. In seven hours she had a third attack, when the hand was again introduced, on which the uterus contracted; firm pressure was made over this organ, another opiate was given, when she fell asleep and had no return."

IV. In a very large proportion of the cases of secondary hemorrhage, it will be found, when we come to inquire into the cause of the attack, that the state of the circulation plays a more or less important part. This, indeed, must be apparent on the most superficial reflection. To a local or general disturbance of the vascular system may be referred all those instances of effusion brought on by premature exertion on the part of the patient, by the incautious use of stimulants, by agitation of mind, local determination of blood[a], or in fact by whatever tends to increase the force of the vital current.

[a] Among the out-patients of the Lying-in Hospital I have known secondary hemorrhage, brought on apparently by sexual intercourse too soon after delivery.

As we possess no means of measuring the degree of uterine contraction, so we can never tell beforehand what amount of vascular disturbance may be borne without the escape of blood from the uterine surface. Should the process of restoration in the uterus be interrupted, or not go on regularly, the vessels, which are still large, will be very apt to effuse their contents under any comparatively trivial excitement of the circulation. A knowledge of this fact points out an additional reason for enjoining strict rest and the horizontal position where the womb remains unusually large at a late period after delivery.

Cases of secondary hemorrhage arising from this cause are not very uncommon. I shall therefore give only one or two examples of it. The first is recorded by Dr. Ferguson, of New York. "The patient was twenty-four years of age, and had never borne children. Her labour was comparatively an easy one, of fifteen hours' duration, and no unusual symptoms presented themselves during her convalescence, till the day above mentioned (thirteenth). For three or four days previous she had left her bed during a good portion of the day, and as the presence of the binder was unpleasant to her, she had removed it without my direction or knowledge. On the morning of the thirteenth day I was suddenly called to see her, and found her very much prostrated from loss of blood. I learned from her that during three hours blood had been escaping from the vagina, but she had avoided communicating the fact to any one, in the hope that the hemorrhage would cease spontaneously. The exact quantity of blood could not be accurately ascertained; all the clothing in the immediate neighbourhood of the nates was saturated with blood, and large clots were lying below the vulva, from which I judged that the quantity lost was not far from two pints and a half. The discharge had continued to increase since its commencement, and when I saw her it was still escaping quite rapidly. Her countenance was pale and anxious, and her pulse at the wrist exceedingly weak and frequent, it being 110 per minute. Upon examination

over the hypogastric region, the uterus was distinctly felt considerably larger and softer than is usual at this period, a circumstance which I attributed partially to the early removal of the binder, and partially to the probable existence of an internal hemorrhage previous to the discharge of the blood from the vagina. Upon introducing a finger into the vagina, I found a clot lying in its cavity, and the os uteri sufficiently dilated to admit its extremity for a short distance. I immediately ordered a cold douche, followed by the application of a bladder of ice over the lower part of the abdomen, administered one drachm of the saturated tincture of ergot, and enjoined absolute quiet in the recumbent position, and cold drinks. The effect of these agents was to produce a moderate contraction of the uterus, though the discharge of blood was not very materially diminished, I now made a re-application of the binder, with a thick compress over the region of the uterus, as firmly as could be borne by the patient, and ordered the administration, every second hour, of the following pill:—Ergot of rye, three grains; acetate of lead, two grains; powdered opium, a fourth of a grain; and mucilage, a sufficiency." Under this treatment she gradually improved. On the evening of the following day it was deemed necessary to free the bowels; to accomplish which a cold water enema was used. Commenting on this case Dr. Ferguson observes: " In this instance I think the hemorrhage is fairly attributable to the early removal of the binder, accompanied by premature exertion on the part of the patient, causing a great excitement of the circulation."

Not many months ago a lady asked me to prescribe for her children's maid, who had been confined in the Lying-in-Hospital twelve days previously, and was attacked with profuse flooding, which recurred on three successive evenings. This was clearly brought on by over-exertion too soon after delivery, and was perfectly cured by rest and the administration of the ergot of rye. Her labour had been extremely rapid, but was followed by very considerable hemorrhage after the expulsion of the pla-

centa. Curious enough, the lady herself, a very slight, delicate person, was near losing her life by an attack of secondary hemorrhage, after a confinement which she had four years ago in Hampshire. The flooding occurred on the *first* day of her rising from bed, though it was the *tenth* from her accouchement. Just before the attack she had suckled the infant, and from the state of her nipples had been put to more than ordinary torture; feeling exhausted, the nurse gave her some brandy and gruel, whereupon a gush of blood took place from the vagina. This was at noon: twelve hours afterwards the hemorrhage recurred with greater violence, deluging all the bed-clothes, and even penetrating through the mattress, so as to form a pool on the floor. She had to give up nursing, and did not recover from the effects of this loss for many weeks.

V. Moreau mentions cases that occurred in his own practice, where secondary hemorrhage (in one patient eight days subsequently to labour) to an alarming extent seemed to be the result of obstinate confinement of the bowels, with great fæcal accumulation in the lower part of the large intestine. So indurated was the excrementitious mass that enemata were of no avail whatsoever, and he had to effect its removal by means of the handle of a spoon, "faisant l'office de curette," as he expresses it. As soon as this was accomplished the discharge of blood ceased. Cases of this kind are not likely to be met with here, in consequence of the very general practice of giving purgative medicines to women in childbed.

VI. Dr. Ayre, in his "Practical Observations on the Disorders of the Liver," assures us that he has known this form of uterine hemorrhage to have been produced by functional disorder of the liver, and to have been suppressed by the administration of calomel. "That the uterine hemorrhage," he writes, "thus occurring during the first two or three weeks after delivery, is generally a symptom only of this functional disturbance of the liver, has not, I believe, been hitherto suspected: that it is, however, to be so regarded I can venture to

pronounce, from repeated observations made upon the disorder, and upon the means that are most efficient for its removal. It is now some years since I was first struck with the power which calomel purges appeared to possess in relieving uterine hemorrhage, as met with in the women belonging to the Lying-in Charity, for whom they were prescribed, simply with a view to their purgative effects. At first I ascribed the effect of the purge in relieving the hemorrhage to the evacuation of morbid matters from the bowels; but further and more accurate observations of the colour and condition of the stools, of the course of the disorder, and effects of the remedy, convinced me that the mere removal of the fæculent matters from the intestinal canal, though a proper, was nevertheless only a subordinate object, and in cases of excessive uterine hemorrhage was utterly unavailing; for, independently of other considerations which militate against that conclusion, a uterine hemorrhage will often come on after the brisk operation of the purge, and even where a spontaneous diarrhœa has for some time existed; and it will cease under the use of calomel alone or combined with opium, when the effect is simply to change the morbid actions of the liver and other organs of digestion, and in that way correct the unhealthy condition of the stools, and abate the frequency of their discharge. The cause, in fact, consists in a sudden interruption of the secretory function of the liver, which gives rise, in an aggravated degree, to an abdominal venous congestion, in which the uterus may, perhaps, participate; and the indication of cure for the hemorrhage, as well as other symptoms, will be found to be answered fully by restoring the biliary secretion. And as the danger in all these cases is imminent, it is of the utmost importance to be prompt in the use of those means which are suited to this end." After pointing out the caution to be used in the administration of diffusible stimuli, and giving some other general directions, he continues: "Calomel is the medicine which must be mainly relied on, and it must be given in small but frequently renewed

doses, following them up by aperients, or combining them with minute doses of opium where a diarrhœa is present, and continuing them until some impression be made upon the complaint, even at the risk of slightly affecting the mouth. By such means, indeed, I have had the satisfaction to save several women, whose condition to the attendants appeared hopeless: and it is under the full experience and assurance of their efficiency that I venture thus in the most unqualified manner to recommend them."

These observations from so high an authority deserve attention. Without wishing to lessen their value as a simple record of experience, I may still be allowed to say that I feel a difficulty in understanding how any functional disorder of the liver could so affect the uterus as to induce flooding. There is no particular sympathy between the two organs, neither does any of the blood from the uterus enter the portal system. The calomel, if it aid at all in the suppression of the hemorrhage, would appear to do so chiefly in virtue of its purgative qualities. In Moreau's cases, on the contrary, a rational explanation may be given, to account for the discharge, as there exists a direct and well-marked sympathy between the womb and large intestine; witness, for example, the good effects of cathartics and enemata in labour; moreover, the anatomical disposition of the rectum and left iliac vein is such that any inordinate distention of the former might impede the return of blood from the uterus, and it must be borne in mind that these hemorrhages are chiefly venous. These objections to Dr. Ayre's opinions are founded solely on physiological considerations, and I put them forward merely as such, leaving it for future observers to determine whether his theory or his experience is entitled to more respect in this matter. On the other hand, we learn from Dr. Watson that Dr. Latham's experience has led him to trust much to mercury, given to the extent of inducing salivation, in obstinate epistaxis. The same author also states that Dr. Southey relies upon mercury "as almost a spe-

cific remedy for obstinate hemorrhage occurring under similar conditions, from whatever organ of the body it may proceed." These remarks to a certain extent corroborate the practice of Dr. Ayre; and it may be in virtue of this antihemorrhagic property of the mercury that it acted so beneficially in his cases of secondary hemorrhage. Dr. Ayre himself says that the calomel must frequently be administered so as "slightly to affect the mouth." These are facts of much significance, and justly claim our deepest attention.

The following case is given by Dr. Ayre: "A case of the most alarming kind fell under my care some months ago, along with my friends, Messrs. Saner and Sleight, gentlemen of considerable practice of this place. The hemorrhage came on about three weeks after delivery, and was most profuse; the complexion of the patient was sallow and death-like; the stools had the colour of coffee-grounds, and very fetid; the mind timid and highly excitable, and occasionally indistinct; she frequently fainted as she laid in bed, and impatiently demanded to be fanned, and to have cold drink. Our treatment was directed exclusively to the correction of the congestive state of the liver, by restoring the biliary secretion, and we gave calomel in small doses frequently renewed. The hemorrhage became inconsiderable, and the other symptoms were much less urgent after some doses of that medicine had been taken; but it was not until after two or three weeks had elapsed, and when the mouth had become slightly sore, that the biliary secretion was fully restored, and that the lady could be considered as convalescent."

VII. According to Dr. Bennett, "the most prominent of all the symptoms occasioned by the presence of inflammatory ulceration of the cervix, during the puerperal state and after abortion, is hemorrhage. Under ordinary circumstances the sanguinolent discharge which follows parturition soon becomes modified, and ceases in the course of a few days, being replaced by the ordinary lochial secretion. When there is ul-

ceration the flow of blood often continues, in greater or less quantity, for three, four, six, eight, or more weeks. The blood thus excreted may be pure, or it may be mixed with muco-pus. This hemorrhage generally resists the action of all the usual anti-hemorrhagic remedies, its continuance frequently producing excessive debility and anemia." He further remarks: "I have no hesitation in saying that when hemorrhage continues after parturition for weeks beyond the usual time, there will *nearly always* be found some inflammatory and ulcerative lesion of the cervix, and that an instrumental examination is indispensable. Once the real nature of the disease is ascertained, the hemorrhage may, generally speaking, be immediately stopped by the cauterization of the ulcerated surface, from which it seems in these cases principally to proceed."

These truly practical observations would appear less applicable to secondary hemorrhage, properly so called, than to those cases of profuse or long-continued lochial discharge to which alone the term "menorrhagia lochialis" should, I think, be restricted. But, even with the utmost latitude in the interpretation of the cases here spoken of, there may still perhaps be some allowance made for exaggeration as to their frequency. Dr. Bennett himself tells us that "inflammatory ulceration of the cervix uteri during pregnancy is of frequent occurrence," which can hardly be said of lochial menorrhagia. As, however, I have seldom deemed it necessary to use the speculum in the latter months of gestation, or during the puerperal state, I cannot offer any positive opinion derived from my own experience in this matter; though I have strong reason to believe that many patients affected with chronic inflammation and ulceration of the os uteri have been delivered under my care, who, nevertheless, had no subsequent attack of hemorrhage or extraordinary amount of lochial discharge.

It occasionally happens, especially in first labours, that the os uteri is slightly fissured by the passage of the child. Now it seems not unlikely that this tear might put on an ulcerous

character, and prove the source of hemorrhage during the puerperal state, under any disturbance of the uterine circulation. This remark I put forward more in the way of a suggestion than as an ascertained fact.

VIII. Secondary hemorrhage has on many occasions been caused by the presence of a polypus attached to the uterus. That a growth of this kind should be capable of producing such a result is intelligible enough. There is a fact, however, of great importance, relating to these cases, which we might not be just so well prepared for, namely, that the polypus may for the first time give evidence of its existence soon after delivery. Denman makes allusion to this, and Dr. Montgomery, in a paper read before the Obstetrical Society, and subsequently published in this Journal, expressly states, "that a polypus, even of large size, may make its appearance for the first time immediately after delivery, no suspicion having been previously entertained of its existence." Cases of polypus complicating parturition, or first appearing after delivery, in the way just mentioned, are recorded by Van Doeveren, Pugh, Smellie, Denman, Fordham, Chaussier, Lee, Ferguson, John Ramsbotham, Francis Ramsbotham, Macfarlane, Merriman, Gooch, Levret, Deguise, Boivin and Duges, Dubois, Ingleby, Crisp, Radford, Davis, Jacquemier, Beatty, Churchill, Montgomery, and many others whose names it would be superfluous to mention.

In the class of cases I am at present considering, the production of the hemorrhage has been ascribed to the polypus impeding the due and perfect contraction of the uterine fibres. But, Dr. Oldham combats this notion, and very shrewdly observes: "This explanation does not accord with the fact of the hard and contracted state of the uterus as felt above the pubis, and with the cessation of the bleeding when the tumour is tied, although left in the womb exerting the same mechanical action as before. It would obviously be superfluous to treat a polypus of this kind by ligature only, leaving the same absolute bulk of growth within the womb, if the bleeding was invariably and

solely caused in this way." Dr. Churchill has published two very interesting cases where profuse flooding after delivery was apparently referable to the presence of a polypoid growth. In one of them the hemorrhage commenced with the birth of the child, and only ended with the life of the patient fifteen hours afterwards. In the other case, of which I give an abstract, the hemorrhage did not begin until some time after delivery. A strong, healthy woman was confined of her second child after a short and easy labour. Fourteen days subsequently she was attacked with excessive hemorrhage, which occurred three or four times in the space of a few days, reducing her vital powers to a very low ebb. On examination per vaginam a smooth, round tumour was found just protruding through the open os uteri. It felt soft and spongy, and the finger could be passed round it, but not sufficiently high to ascertain its insertion. Its size appeared to be about that of the larger end of a hen's egg. Under the use of the plug and other means the discharge ceased, and the uterus, gradually contracting, enclosed the polypus, so that it could no longer be felt, and the os uteri resumed its natural state.

Dr. Hamilton "witnessed upon one occasion a case of fatal uterine hemorrhage three weeks after delivery, where the only apparent cause was a polypous excrescence, not larger than a horse bean, situated upon the internal posterior surface of the uterus, about three inches above the orifice." Dr. Johnson was once present at the *post mortem* examination of a woman who had died of flooding after parturition, and in the uterus was found a large polypus, growing by so slender a pedicle that the slightest twist might have severed it, and thus perhaps have saved the patient's life. The following history was communicated to Dr. Oldham by Dr. Radford: "I was requested by Dr. ——— to visit Mrs. H., residing about seven miles from Manchester, whom he had attended for some days, with a general practitioner of the highest respectability. She had been delivered a fortnight, after a natural labour. The dis-

charge afterwards became more profuse, and continued during the above-mentioned period, and frequently occurred in gushes. Paroxysms of violent uterine pains, attended by bearing-down sensations, greatly harassed her. The attentions of Mr. ——— were unremitting, and he always found the uterus contracted. His treatment was directed to mitigate constitutional symptoms, and subdue local pain, and also to maintain and support the tonic contraction of the uterus.

"No benefit was derived from the various remedies he made use of, but the vital powers continued to decline, and when I saw her I found her *in articulo mortis;* indeed she died in two or three hours afterwards." At the *post mortem* examination there existed "no appreciable disease in any other organ except the uterus, in which was found a polypus of an oblong shape, about two inches in length, and attached to the anterior part of the body; its depending part was two inches in circumference, and its upper or neck about an inch and a half. That portion of the uterus in the vicinity of its connexion was dragged downwards and inwards." It is almost superfluous to remark that in cases of this kind nothing short of a vaginal examination can reveal the true cause of the hemorrhage.

IX. Inversion of the uterus has long been recognised as a cause of hemorrhage *post partum.* "I feel strong reasons," says Mr. Crosse, "for believing, as has been repeatedly stated by authors of high reputation and great experience, besides those already quoted, that partial inversion exists more often than is generally suspected, and is the cause of hemorrhage after the delivery of the after-birth." The loss so produced ordinarily takes place immediately upon the removal of the placenta, this being almost invariably the time at which the displacement occurs; but it may be repeated at uncertain intervals subsequently, if the malposition be not rectified. Thus Mr. Crosse observes: "The hemorrhage may continue for hours, or first show itself in a considerable degree when several hours,

or even a day or two, have elapsed." Cases are not wanting which sufficiently prove that the inversion may escape detection at its first occurrence, the accompanying symptoms not being decidedly marked. Professor Desormeaux reports, that "he was consulted for the case of a woman in whom there was an incomplete inversion which was not detected until twenty-one days after the child-birth." Dr. Meigs adds: "I have seen a case in this city in which the occurrence was not verified until thirty days after labour, and another in which eighteen months elapsed before the fact was ascertained." Dailliez mentions a case where the displacement was first discovered six months after it happened; Mauriceau, one at eight months; and two so late as at nine months fell under the knowledge of the late Dr. Ingleby.

Again it is supposed that the womb may spontaneously become inverted some days after parturition. On this point M. Colombat writes: "Notwithstanding inversion of the womb would appear, in a manner, to be impossible subsequent to the escape of the fœtus from its cavity, which is the period when the viscus is most expanded and most flexible, both Ané and Baudelocque bear witness to its having occurred upon the third day, and Le Blanc on the tenth day after delivery." This is an occurrence of extreme rarity. In fact the bare possibility of its happening, except as the effect of a polypus, would seem to be scarcely admissible; nor do I think the explanation offered by Dr. Burns much more satisfactory. He supposes that a partial displacement had in every instance previously existed, the change from which into a complete inversion occasioned the sudden development of symptoms leading to the discovery of the true state of the womb. Without entering further into these disputed points, suffice it for our present purpose to know that partial or complete inversion of the uterus is one, however uncommon, of the many causes of secondary hemorrhage; and that a knowledge of this fact furnishes us with an additional reason for instituting a vaginal examination in all these cases.

I have now recited, though very imperfectly I fear, what may be considered as the ordinary causes of secondary hemorrhage after parturition. In the category may be included an immense majority of all the examples of this accident which occur. Here, however, as in every other field of medical observation, anomalous cases occasionally come before us, which cannot be reduced to any kind of order or systematic arrangement. Some of these heterogeneous cases I shall now relate, and though it may fall to the lot of few to witness similar instances, still they should not on this account be passed over unnoticed. Viewed simply as curiosities of medical experience, they will be read with interest; and as objects of pathological inquiry they become invested with real importance. The following collection of cases might, doubtless, be considerably augmented; but this would have required a closer and more extensive research than I was able to make throughout the records of midwifery.

For the following history I am indebted to the kindness of my esteemed friend, Dr. Churchill, who was called into consultation in the course of the case. A lady had been safely delivered, under the care of Mr. Speedy, of a living child, after a natural and easy labour, without more discharge than ordinary. She recovered apparently, so that her attendant discontinued his visits; but about three weeks or a month after her confinement she was attacked with uterine hemorrhage to a considerable amount, which returned in less quantity, and continued, with occasional intervals of a day or two, until her death, which took place about a month afterwards. On examination all the organs were found to be healthy, except the uterus. At its fundus there existed a vascular growth, like an erectile tumour and about the size of a hen's egg, projecting into the cavity, and occupying the thickness of the uterine parietes in this situation. It was spongy, soft, and could not be enucleated. The entire uterine substance was displaced or absorbed at that part.

A case in many respects similar to this, and one too of se-

condary hemorrhage, is recorded by Professor Kilian of Bonn. I shall give it as translated in the British and Foreign Medical Review: "A. B., twenty-four years old, strong and well made, was admitted, in an advanced stage of pregnancy, into the lying-in hospital at Bonn. She was then extremely healthy, and did not remember to have ever suffered from illness. The menses made their first appearance in her fourteenth year, and afterwards regularly every three weeks. She had menstruated once during her pregnancy. At the expiration of her time she was delivered of a boy. Half an hour after delivery the placenta came away, almost without assistance. At that time she was so well that her medical attendant joked her on a presentiment of the fatal termination of her accouchement, which she had frequently manifested, and which she, notwithstanding, still continued to nourish. The first three days subsequent to her delivery passed off without any symptom of disease. The secretions were healthy and the general state of the patient highly satisfactory; but, during the afternoon of the fourth day, Dr. Kilian was sent for in great haste to see the patient, who was described to be swimming in her blood.

"About two o'clock, whilst suckling her infant, she had exclaimed that she felt something boiling hot flowing between her legs, and immediately fainted. Before the nurse and house surgeon could come to her assistance, the hemorrhage had ceased. When Dr. Kilian arrived she had in a great measure recovered from the fainting fit into which the sudden loss of two pounds and a half of blood had thrown her. He proceeded to an examination both externally and per vaginam. He found the uterus properly contracted, uniformly firm, and free from pain on pressure. The os uteri presented no coagulum, and was not more open than usual four days after delivery. Dr. Kilian was perfectly ignorant, and had indeed not the most distant suspicion of the cause of the hemorrhage; nor had already carefully ascertained that the coats [illegible] came away. Under these circumstances all that could be prescribed were

general preventive measures; such as the horizontal posture, repose, and cold applications to the external parts of generation," &c. The patient continued gradually gathering strength till the 7th of February, when she was visited by a precisely similar attack of flooding, which recurred on the 13th, and again on the 26th, each time the loss being very sudden and profuse. After this last attack she remained very much debilitated, and exhibiting the greatest despondency. The circulation was rapid, and the respiration correspondingly affected. On the 3rd of March, during the visit of the physician, there was a renewal of the hemorrhage, which ended in convulsions and death. "At the post mortem examination, all the viscera were found in a normal condition, except the uterus, and a cursory inspection of that did not betray its disease. It was pale, contracted, and firm; but on its front surface was observed a circular spot, rather larger than a half-crown piece, of a pale red colour, and less firm than the rest. An incision was made in the uterus posteriorly, and on its internal surface was discovered a tumour, corresponding to the above-mentioned spot, two inches long, and one and a half broad, of which the covering membrane hung down into the cavity of the uterus, and thus facilitated the inspection of its internal structure. This was extremely vascular; on looking into it, the open mouths of the innumerable vessels were easily discernible by the naked eye. Around the tumour the substance of the uterus was rather softer than elsewhere, and the numerous vessels leading towards it formed a concentric network"[a].

[a] A case resembling this in its pathological features is narrated by Dr. Carswell. A lady, aged 45, died from the effects of uterine hemorrhage, to attacks of which she had been subject for some years. "The only morbid appearance found consisted in a round, flat tumour, nearly three inches in breadth and half an inch in thickness, situated at the fundus uteri, and projecting into the cavity of the organ in the form of a mushroom. It appeared at first sight to form part of a large fibrous tumour situated posterior to it, and contained in the substance of the uterus. It was, however, a distinct tumour, the central portion of its posterior surface being but slightly

The following case, extracted from Dr. Collins' invaluable record, is a very remarkable example of secondary hemorrhage in consequence, apparently, of a laceration sustained by the uterus during labour. A woman, "on the fifth day after delivery, without any apparent cause, was seized with violent hemorrhage. When we saw her, which was immediately after, no pulse could be felt; and, though most prompt and active measures were employed, she died in less than an hour. She had been delivered, by the natural efforts, of a living child (her fifth), after a labour, not very severe, of forty-eight hours; nor from that time was there distress of any kind perceptible. On dissection the abdominal viscera appeared healthy, as did the uterus at first sight; but on raising it out of the pelvis, about the size of a shilling of its muscular substance, corresponding to the projection of the sacrum, was found to have given way, the peritoneal covering remaining uninjured. There were two spots in the vagina approaching to a state of slough."

Perhaps in this history the data do not warrant us in concluding that the loss of blood proceeded from the laceration of the uterine structure. That such might have taken place, however, cannot admit of question. The same may be said of the following case, which occurred in the practice of Smellie. Having stated that, in consequence of flooding, he deemed it necessary to deliver the patient by turning the child, he continues: "Unluckily, when stretching the os uteri, which felt thin and rigid, like a piece of parchment, the woman shrunk from the side of the bed, which obliged me to dilate with more

attached to the mucous membrane, and was composed of a cellulo-vascular tissue, with here and there small cavities filled with a yellow-coloured serosity, or a fluid resembling chocolate. The free surface was covered by a smooth membrane, presented a mottled aspect of grey, blue, red, and yellow, and was traversed by numerous varicose vessels, some of which were pretty large. From these vessels, I believe, the hemorrhage proceeded; and it is probable that the periodical character of the discharge, and the frequency of its recurrence, depended on the erectile nature of the tumour."—*Pathological Anatomy*, fasciculus 10, plate iv. fig. 2

force than I intended, to get my hand into the uterus; at which instant I felt the mouth of the womb give way, and tear at the side, so as to allow my hand to pass without further difficulty. The flooding diminished after delivery, on giving her fifteen drops of the *tinctura thebaica*, but returned in two hours, and ceased again on repeating the same medicine. She slept pretty well all night, was next morning much recruited by the refreshing rest and nourishing diet, but soon after was attacked with a violent hemorrhage from the vagina, by which she was in great danger of expiring immediately. This was checked by introducing into the vagina a sponge dipped in a solution of alum. To me it seemed probable that this flooding might proceed from some of the large vessels being torn that enter at the side of the uterus. She was long weak, but by the assistance of the *cortex Peruvianus*, and a nourishing diet, recovered."

Madame Lachapelle narrates two or three cases of hemorrhage supervening some hours after delivery, in consequence of slight lacerations at the vulva. In one instance, where cold wet cloths, and even cold injections into the vagina, had quite failed to restrain the discharge, she discovered the source of the hemorrhage to be a tear in the left nympha. By applying a piece of agaric to this, and confining it there with a plug or pad of charpie, the bleeding was effectually subdued. She gives two other examples of this kind, but the hemorrhage in them took place during or immediately after labour. A similar result I have seen produced by the rending of a cicatrix in the vagina during the expulsion of the fœtus. The bursting of a thrombus, or "bloody tumour" of the labium, may also be the cause of very smart hemorrhage some hours after delivery.

A very interesting and singular case of secondary hemorrhage is recorded by Baudelocque, in the third volume of his System of Midwifery: "A woman, whose pelvis had but two inches eight lines in the diameter of its entrance, having suffered no extraordinary accidents in the first eight or ten days of her lying-in, though the labour had been exceedingly la-

borious, on the twenty-second was seized with a considerable flooding, being then walking in her chamber; but this flooding, which lasted but an instant, did not hinder her from getting up the next and the following days, till the thirteenth, when she sank under a fresh hemorrhage, which lasted no longer than the former. On opening the body we found a purulent collection in the cellular substance which surrounds the right psoas muscle, and a considerable varicose sac, lined with sanguine concretions, which had opened with the abscess at the superior part of the vagina, a little anteriorly. The uterus was small, compact, and shut, and contained not a drop of blood within." In this relation the account of the necroscopic appearances is very deficient, and leaves us in ignorance upon many points of importance. The nature of the connexion between the abscess and "varicose sac" is not explained; neither are we informed what vessel this sac originated from, nor even whether it was from a vein or an artery, though the former may be presumed from his using the epithet "varicose."

At a meeting of the Dublin Obstetrical Society, Dr. Sibthorpe related the history of a remarkable case in which death occurred about three weeks after delivery, as the result of uncontrollable hemorrhage from the vagina. At the time of its occurrence there was no reason for supposing that this flux of blood did not issue from the uterus; but the post mortem examination (at which I assisted) led to a very different conclusion. The womb was found well contracted, of the natural size, and without any trace of blood in its interior. A large coagulum existed in the vagina. Some sloughing of this canal had been going on, and had extended through its substance at the left side, corresponding in situation to the descending ramus of the pubis: and it was conjectured that the coats of some vessel, a branch, probably, of the internal pudic artery, had been destroyed, whereby the hemorrhage was produced. At all events no other source for it could be discovered. As this

woman was in a weak, exhausted state at the time, having had a very difficult labour, the actual amount of loss which she sustained was by no means great.

In the present Number of this Journal my friend Dr. Johnston gives the details of a very singular, if not unique case, in which, five days after parturition, fatal hemorrhage took place, from what appeared to be a varicose aneurism in the substance of the uterus.

In discussing the treatment of secondary hemorrhage, I shall, so far as it may be found convenient, follow the same order as that in which its causes have been described. It is not to be expected that in every case coming before us we shall be able to discover the exact cause of the effusion, no more than can be done in every case of hematemesis, or of hemoptysis. But this very circumstance, the absence of any obvious or assignable cause, is, *per se*, a sort of evidence, and simplifies, in some degree, the treatment. In all examples of this kind we must only be guided by the following general principles, viz.: to tranquillize the circulation, both local and general; to promote the condensation of the uterine structure; and to use such constitutional and local remedies as may tend to favour coagulation at the mouths of the vessels. It may occasionally happen, even where we know what the exciting cause has been, and are fully alive to the importance of its removal, that this may be a matter of only secondary consideration, the first object being to relieve the present urgent symptom, in fact to stay the effusion; having effected this we can devise at leisure the best means of obviating the conditions which have led to the outbreak of hemorrhage.

In fulfilling the first and second of the above indications of treatment, the means to be employed are sufficiently obvious. Perfect rest in the horizontal position is to be strictly enjoined, and stimuli of every kind rigidly withheld; the patient must lie on a hard bed in which her hips cannot sink; and firm pressure, with occasional friction, should be made over the uterus.

so as to promote its contraction, and expel any coagulum that might have formed within it. At the same time the ergot of rye should be administered with as little delay as possible, since in these cases our chief reliance for the suppression of the discharge is on this remedy. Fifteen or twenty grains of the fresh powder may be given in the first instance, and repeated, if necessary, in forty minutes or an hour. If the discharge be not very profuse it may be more advisable to give the ergot in five or six grain doses every three or four hours; but in every case I would recommend the first dose to be a full one. A caution should here be mentioned respecting its use. If the patient be alarmingly reduced when the practitioner is called in, the propriety of administering ergot will require serious consideration, inasmuch as this drug exercises a decidedly sedative influence upon the system. This property, which, doubtless, enhances the efficacy of ergot in many cases, renders its exhibition questionable where extreme exhaustion is present. If the patient has been only a few (two, three, or four) days brought to bed, it is not desirable on slight grounds to have recourse to cold applications, for fear of inducing uterine inflammation; but if she have been longer confined, or if the flux of blood be immoderate, the same objection does not obtain. The ordinary modes of using cold for the suppression of uterine hemorrhage are well known, and need not be here described. I have seen very excellent effects from an enema of cold water, in which a spoonful of common marine salt had been dissolved. If the bowels require to be unloaded, the enema produces a doubly good effect. Having by the diligent and judicious employment of these measures subdued or greatly abated the discharge, the administration of a moderate dose of black drop, or of liquor opii sedativus, may be resorted to with advantage. It proves useful in many ways; it induces sleep, "nature's sweet restorer;" it allays the nervous excitement and irritation, which so constantly are present in these cases; and it tends to tranquillize the circulation.

It occasionally happens that these means are found inadequate to accomplish the desired end, and something further must be done. To meet this exigency we possess a very powerful resource in the tampon or plug. The danger to be apprehended in using it is internal hemorrhage. Baudelocque and Madame Lachapelle have both recorded cases where a fatal result was produced in this way, one on the seventh and the other on the fifteenth day after delivery. The latter author observes that if the patient have been one or two weeks brought to bed, it is barely possible for the uterus to become distended with blood. In every case, however, such a contingency can and should be guarded against, by securing a pad over the uterus with a well-applied binder; and if this is not deemed a sufficient provision, we can make "assurance doubly sure" by examining from time to time over the hypogastrium, to satisfy ourselves that the womb is not enlarging. Leroux and Chevreul are strong advocates for the tampon, and Baudelocque, though he considered it a last resource, nevertheless admits that he employed it many times with success. Dr. Ingleby says he used it "with the best effect in hemorrhage imminently dangerous, as late as fourteen days after delivery, the uterus being firmly contracted." "More than once," he adds, "I think I have preserved life by the agency of the plug." If the vagina be inflamed or sloughing, either condition would of course forbid the use of the tampon, and under these circumstances nothing but the direst necessity would justify its employment. In such a case as this I should prefer trying an injection of cold water, or, better still, of cold infusion of matico, into the vagina. A silk pocket-handkerchief forms about the best material for a plug that can be used, and it is always at hand. Other substances have been recommended, such as sponge or dossils of linen, or a vulcanized Indian rubber bag which is to be inflated after its introduction. This last is the suggestion of M. Diday of Lyons, and a description of it will be found in the tenth volume of this Journal, p. 129.

The plug should not be allowed to remain longer in the vagina than twenty-four, or at most thirty-six hours.

Several cases could be related illustrating the utility of the tampon, but I need only adduce two or three. Perfect was sent for to a lady who got violent flooding some weeks after delivery. He "stuffed the vagina full of dossils of fine tow and oxycrate; kept the patient in a cool, still, horizontal posture; gave her an opiate, and the flux stopped. On the third day the dossils came away spontaneously. She recovered well, and went through two subsequent pregnancies." The two following examples occurred in the Lying-in Hospital, and came under my own observation. A woman was delivered of her first child after a labour of five hours' duration. Half an hour after the birth of the child, the uterus relaxed, and the pressure applied to it expelled the placenta. This was followed by a slight draining of blood, which was checked by the ordinary means, but recurred two or three times during the day. The next morning (she being then twenty-four hours brought to bed), a large clot was expelled from the vagina, and was followed by pretty copious hemorrhage. As the uterus was not firmly contracted, cold and pressure were made use of, and a dose of ergot administered, but without success, as the loss went on slowly but continuously. An examination was made per vaginam, but nothing abnormal could be detected. The pulse was quick. As the patient had now become extremely weak, and the hemorrhage still continued, the vagina was plugged, and every care at the same time used to prevent the possibility of internal hemorrhage. A blister was also applied over the sacrum. By these measures the discharge was arrested, but the patient was so very weak, that brandy and opium had to be given. Though the pulse continued rapid for some days, she nevertheless made a good recovery. The plug was allowed to remain in the vagina for twenty-four hours, when it was cautiously withdrawn.

A. B. was confined of her fifth child at mid-day, after a

labour of six hours. The placenta came away in twenty-five minutes, and was followed by a slight discharge of blood, which ceased upon tightening the binder and applying a cold wet napkin to the vulva. In the afternoon she had a return of hemorrhage; but it was not severe, and yielded to friction and cold. She remained quite free from all discharge until the following morning, when, on making some exertion, the hemorrhage broke out afresh. The usual means, such as ergot, friction, cold, &c., were now diligently employed, but without avail. There was only one remedy left, and that was the tampon. To its employment there was the less objection, as the uterus felt pretty firmly contracted; accordingly, the vagina was plugged (the usual precautions being observed against internal hemorrhage), and this effectually put a stop to all further loss. The pulse continued quick for several days, and she suffered considerably from headach ; but there was no other untoward symptom, and she made a good recovery.

Where the hemorrhage manifests a disposition to recur, or where there is time to admit of it, we should have recourse to constitutional means for its suppression. Keeping in mind the hint which Dr. Ayre's remarks supply, we should satisfy ourselves that the liver and bowels are in a healthy state of action, and, if necessary, prescribe some opening medicine. Where this has been attended to, but without effect on the sanguine discharge, some medicine from the astringent or styptic class should be tried. Acetate of lead is the one most extensively used, but though it enjoys high reputation as a styptic, I cannot say I have ever seen any striking or marked result from its employment in these cases. Dr. Ingleby recommends it specially in irritable habits, but he also says, "under much depression it will be quite inadmissible." It is not improbable that much of its utility in cases of hemorrhage is to be attributed to its sedative property. It is best given in solution, with an excess of acid, and with the addition of a small quantity of acetate of morphia. The same accoucheur states, that in cases

of the kind now under consideration he "can with much confidence recommend the sulphate of zinc, in pills of one or two grains, combined with a quarter or half a grain of opium, or exhibited in the infusion of orange-peel." The dilute sulphuric acid is another remedy largely employed as a hemostatic, but it does not seem to possess any claims for preference in these cases. Within the last few years gallic acid has taken a high place in the list of styptic medicines. Dr. James Hughes[a] and Dr. Neligan[b] have recorded in the pages of this Journal examples of its efficacy in restraining sanguineous discharges from the kidneys, urethra, stomach, uterus, and bowels; and Dr. Stevenson relates several cases of uterine hemorrhage, not, however, connected with pregnancy, which were treated most successfully with this remedy. Last November I saw, along with Mr. Brabazon, surgeon to the Drumcondra Dispensary, a case of excessive uterine hemorrhage, connected with hydatids, in which the gallic acid appeared to act most speedily and efficaciously. This patient was so reduced by the enormous loss of blood she had sustained, that we deemed it unsafe to give her ergot of rye. Whilst these pages were going through the press, I had occasion to exhibit this medicine in a case of protracted hemorrhage after an early abortion, and it acted very promptly and effectually in suppressing the bleeding. It is reasonable, then, to suppose that gallic acid may prove a useful remedy in many cases of secondary hemorrhage. The usual dose is three grains, in the form of pill made with liquorice powder and conserve of roses, every three or four hours. Where the danger is imminent, the dose may be much increased: in urgent cases of hemoptysis, Dr. Christison has given so much as thirty-six grains in twelve hours.

The tincture of Indian hemp and the oxide of silver are two other remedies that have acquired considerable reputation in

[a] New Series, vol. iii. p. 275, and vol. ix. p. 309.

[b] Ibid. vol. ix. p. 347.

the treatment of certain sanguineous discharges from the uterus. The anti-hemorrhagic properties of the former were discovered by Dr. Maguire, of this city; and Dr. Churchill has reported most favourably upon its use in menorrhagia. In one case of uterine hemorrhage nine days subsequently to delivery, I made trial of it, and with a satisfactory result. Donovan's tincture of the resin was the preparation employed in all these instances.

Some time back attention was drawn to the advantages of oxide of silver in menorrhagia, by Dr. Butler Lane and Sir James Eyre. Their observations have been fully confirmed by Dr. Thweatt, of the United States. "The oxide of silver is," he thinks, "best adapted to those forms of menorrhagia which depend on an undue excitation of the uterine organs, accompanied with high inflammatory action. Cases often present themselves where profuse hemorrhage makes its appearance at the usual menstrual period, or immediately after it has passed; in these cases there is an extraordinary excitation of the nervous system. The oxide of silver here often acts like a charm, calms the perturbation of the nervous system, and arrests the hemorrhage by its astringent qualities. It should be given in large doses, and repeated at short intervals, until some effect is apparent. Women, after parturition, are frequently troubled with a sanguineous discharge, distinct from the lochia, which is difficult to remove by the usual remedies. The oxide of silver is an infallible remedy for this pathological condition"[a]. The ordinary dose, he says, is half a grain to one grain twice or three times a-day, combined with a small proportion of opium. If all that this writer affirms of the oxide of silver be true, it deserves to hold an exalted place in the materia medica of the accoucheur; but his praise of it is too unmeasured for implicit belief. A blister to the sacrum is another means that has sometimes been followed by a very marked subsidence

[a] Ranking's Abstract, vol. x. p. 320.

of the discharge. The value of this remedy I learned from Dr. Johnson, when his assistant in the Lying-in Hospital; its *modus operandi* is not very apparent, but of its utility I have witnessed many examples.

If the hemorrhage is of an atonic or passive kind, approaching in character to menorrhagia lochialis, it will probably be found that medicines of the tonic and chalybeate class will prove most serviceable. A very admirable combination in these cases is a mixture composed of sulphate of iron, sulphate of quina, dilute sulphuric acid, and water; if required, a small quantity of Epsom salts may be added. In the following case I had recourse to this mixture with complete success, after having in vain tried other means to conquer the hemorrhage. On September 14, 1848, I delivered Mrs. M. of her seventh child, after a short labour. The placenta came away in ten minutes, together with the membranes and some clots. She recovered so satisfactorily, that I ceased attending on the 22nd. On the evening of the 24th I was requested to visit her again, and found her in a rather weak state, and much frightened, there having been a free discharge of blood from the vagina for some hours,—which had never occurred before, even in her confinements. From the effects of the hemorrhage on her system, and the quantity of linen which was saturated with blood, it was plain that the loss must have been very considerable. Her pulse was quiet, and her bowels had been freed in the morning. I made an internal examination, but could discover nothing, except that the mouth of the womb was rather patulous. I ordered cold wet napkins to be applied to the vulva, and half a drachm of powdered ergot to be given through the night, in three doses. This treatment produced some temporary abatement of the discharge, but did not seem to exercise a decided influence over it. Upon the 27th, finding the loss to be still going on, and the pulse to be perfectly quiet, I ordered the above mixture three times a day.

This very promptly and completely arrested the sanguineous discharge.

Dr. Leake recommends the exhibition of strong infusion of bark and elixir of vitriol, with a small quantity of tincture of cinnamon, as being very efficacious in cases of severe flooding after delivery. That particular variety of secondary hemorrhage I am now speaking of is very fully described by Chambon (Maladies des Femmes en couches); in addition to the tonic plan of treatment, he recommends astringent injections into the uterus.

Before concluding this part of my subject, I should perhaps mention, that oil of turpentine in full doses has been much lauded by Mr. Griffith, of Wrexham, in extreme cases of uterine hemorrhage before and after delivery, as well as in menorrhagia. He gives so much as an ounce, with half that quantity of sweet almond oil, for a dose. This remedy is not suitable, he thinks, in cases where there is a hot skin, a full pulse, and undiminished strength.

Where there is ground for suspecting that the attack of secondary hemorrhage results from the retention of a portion of the placenta, a vaginal examination should at once be made, to determine the question, and to ascertain whether the offending substance be accessible or not, as its speedy removal is most desirable. I would here reiterate the precept already laid down, that in no case of secondary hemorrhage should an internal examination be omitted, since this is the only mode of diagnosis by which we can distinguish with certainty some of the causes that give rise to the discharge; and besides, during the presence of the hemorrhage an opportunity may be afforded for extracting a clot or fragment of placenta, which might not again present itself. Where the retained mass is within reach of the finger, and can be got away without violence, there is no second opinion about the propriety of doing so. But this may not be a matter so

easy of accomplishment, and the question then arises, how far is the practitioner justified in making attempts to withdraw the retained substance? This is a point on which it is impossible to give any definite directions in words. Dr. Ingleby's opinion is, "that whilst rashness cannot be too much deprecated, we should not be justified in abstaining from a cautious attempt, should a favourable opportunity occur, and the mass be within reach of the fingers."

Baudelocque tells us he has seen hemorrhage from this cause not show itself till the tenth day after delivery; and he adds, "When it is abundant, as it was in that case, it requires us to pass the hand into the uterus, to extract the foreign body from it." Further on he gives more judicious advice: "If we were certain of the existence of these portions of the placenta at the time of the deliverance, it would be better to extract them immediately than to wait till succeeding accidents oblige us to it; but if we are not called till some time afterwards, there must be very great accidents to determine us to take the same method." The use of a small crotchet has been recommended by Dr. Dewees for hooking away the foreign body out of the uterine cavity: but this, or any similar instrument, I have never seen used for the purpose, and feel convinced of the impropriety of all such attempts. If the safe removal of the retained bit of placenta be impracticable, we must only employ such palliative measures as shall tend to keep the discharge in check. Strict rest and quietness, cold applications, cold enemata, blistering over the sacrum, plugging the vagina, and the administration of ergot, may be severally or conjointly required, according to the circumstances of the case. Dewees thinks very favourably of the ergot in this kind of hemorrhage; and as a subsidiary means for restraining the discharge, there is no doubt of its occasional value and general admissibility.

Where, from the absence of any other adequate cause, and from the existence of ulceration of the os uteri, we are led to believe that this is the source of the hemorrhage, our

measures should, of course, be directed to heal the breach of surface. The treatment to be pursued in these cases does not differ essentially from that which is applicable to ordinary cases of inflammatory ulceration of the cervix uteri. For full and satisfactory information on this subject, therefore, I must beg to refer the reader to the admirable works of Bennett, Ashwell, and Churchill, as I can here give only a mere outline of the broad principles of treatment. Common prudence will suggest the advisability of postponing topical applications to the os uteri, until the system has recovered from the effects of parturition. If a fortnight or three weeks can be allowed to pass over, so much the better. Then we may begin to touch the surface of the ulcer with the nitrate of silver, or some other caustic,—and many have been proposed,—once or twice a week; a mild injection may be thrown into the vagina daily, and active counter-irritation should be made over the sacrum; this I look upon as a very important part of the treatment, and never to be neglected. Contemporary with these measures, constitutional treatment must in every case be employed. The stomach and bowels having been brought into a healthy state of action, by a course of gentle alteratives and aperients, the administration of tonic medicines may be commenced; our great object being to improve the general health, and to restore the system at large to its most normal condition, that in which all the functions, especially those of nutrition, are performed with the greatest regularity and vigour.

Having in any given case ascertained that the secondary hemorrhage is due to the presence of a polypus, the leading question of practice will be the propriety of removing the growth. Although flooding is not the only symptom which may force this question on our consideration, yet on the present occasion we must confine ourselves to it alone. The following observations, therefore, will be understood to have reference solely to this effect of the polypus. Operative interference with the tumour during the puerperal state is apt to

be attended with unpleasant or dangerous consequences, owing to the increased size and vascularity of the uterus and of the tumour at this period, as well as from the tendency then existing to inflammation or phlebitis. Thus in a case in which Van Doeveren twisted off a polypus during labour, the woman's life was in imminent danger from abdominal inflammation for some days after. Dr. Davis relates a case where the ligature applied to a polypus immediately after delivery produced a fatal result; and in the case recorded by Mr. Fordham, the polypus was tied very soon after delivery, and the woman died next day. The unfortunate result in this instance should not, perhaps, in justice be imputed to the ligature. The urgent symptom which necessitated interference was violent forcing pain, and this could not have been allayed simply by encircling the growth with a cord; excision should have followed.

On the other hand, many cases might be adduced in which the polypus was successfully tied or extirpated before, during, and soon after parturition. Merriman and Gooch relate cases where its removal was effected by ligature, during gestation, without disturbing this process. Van Doeveren successfully twisted off a considerable-sized polypus during labour; and in a like case, where a polypus was obstructing the descent of a six-months fœtus, Pugh tied the pedicle and then excised the growth below. The child was born in half an hour, and the woman recovered well, and was subsequently four times pregnant. In addition to these, numberless other cases could be adduced where the polypus was removed, with complete success, soon after delivery: further on I shall have occasion to quote some of them.

Notwithstanding this array of evidence in favour of the early performance of the operation, it still can hardly admit of question that the safest and most prudent course, in cases of secondary hemorrhage from polypus, will be to forego all attempts at extirpating the tumour as long as possible, or until the woman has recovered from the effects of parturition, when the

attendant risk will be infinitely less. In furtherance of this object we must strive to keep the discharge in check by the diligent use of cold, styptics, the tampon, and, perhaps, ergot of rye. Should the hemorrhage persist in spite of these measures, our only alternative is the removal of the tumour. Torsion, ligature, excision, or a combination of the two last, are the various modes by which this may be effected. The situation of the growth, whether within or without the uterine cavity, the thickness of its pedicle, and the presence or absence of pain, are the chief circumstances which should influence us in determining our mode of proceeding. "If," says Dr. Oldham, "the pedicle of the tumour be within reach, I should prefer, having first tightly drawn a ligature around it, to cut off the polypus immediately below it; as this practice would be likely to quiet the womb, besides arresting the hemorrhage, by diminishing the foreign body which provoked its action, and would save the organ from being exposed to the influence of so much putrid matter by the decomposition of the polypus below the noose. If, however, the polypus is so enclosed by the womb as not to be so readily reached for this purpose, the application of the ligature alone upon its stem is the next best means to be had recourse to. Should the pedicle be ascertained to be small, and the growth very moveable, torsion, perhaps, may be attempted." Of this form of secondary hemorrhage I shall now give a few examples, which will also illustrate each of the above modes of removing the polypoid growth.

"Dr. Ramsbotham was called to a lady about thirty years of age, by Mr. Moon of Tottenham. She had been delivered naturally about three weeks before, and during this time she had had slight and irregular discharges of blood. On the morning Dr. Ramsbotham saw her she had passed blood enough to cause fainting. She took small doses of ergot without relief. 'I found the uterus,' says Dr. Ramsbotham, 'as large as a six months' pregnancy, and tender; a slight discharge was going on *per vaginam;* the uterus was large; the os soft, spread, and close:

I could just get a finger in, and thought there was a secondary fœtus, or large coagulum. I gave ergot in larger quantity, which produced much pain.' On Tuesday morning, after much pain during the night, Mr. Moon felt the os opening, and something within the cavity; and at 2 o'clock, P. M., he was hurriedly sent for, from the severity of the pain, and the nurse finding something protruding. He passed his hand into the uterus without much trouble, by the side of the tumour, and found it attached, by something like a funis, to the fundus. He embraced the stem firmly, and, under strong uterine contraction, his hand and the tumour were expelled together. This lady recovered without a bad symptom."—(Oldham.) M. Jacquemier gives a case in which Cloquet detached a large polypus "by the simple action of his fingers," after parturition, and with the most happy result: the woman recovered speedily.

Dr. Radford writes: "I was called to a woman who had been delivered six hours, the labour having been natural. The discharge was greater than usual with her; and strong bearing-down pains, with gushes of blood, continued to distress her. Between the pains there was a continual dribbling discharge. The contracted uterus was felt above the pubes, rather larger and softer than it usually is; but when the pain recurred it sensibly diminished in size, and became harder. In consequence of the violent uterine pain, I felt convinced that some irritating mechanical body was provoking the organ; as a part of the placenta, a coagulum of blood, a polypus, or a partial inversion of the uterus; and in order to satisfy myself of the real nature of the case, I introduced my hand into the vagina, and the finger through the os uteri, which was open. I felt a firm body, which, when pressed laterally, moved; and, on carrying the finger along the surface, I found it less above than below. I therefore concluded it was a polypus. I gave a drachm of laudanum to quiet the pains, and applied cold vinegar and water to the external genitals, to restrain hemorrhage until I could fix a ligature on the growth. These, however, were

ineffectual; and whilst I was waiting in the house she was seized with a very strong bearing-down pain, like one of the last expulsive pains of labour, which induced me again to examine. I found the tumour in the vagina, at the os externum, quite detached from the uterus, as large as a middle-sized orange, with a slender pedicle. From this time the pains gradually subsided, and the hemorrhage ceased. The patient recovered without the slightest interruption."

The same author details another case where he detached a large polypus, by torsion, from the interior of the uterus, before the withdrawal of the placenta. This patient slowly recovered, but the delay was owing, in a great measure, to all the blood she had lost before Dr. Radford saw her.

In these four cases it will be perceived that the pedicle of the tumour was forcibly severed, in one instance by unaided uterine action, and in the other three by torsion. In those which I am now about to cite, the extirpation of the polypus was effected by means of the ligature. M. Deguise applied a ligature, after a twin delivery, to a polypus, " du volume d'une poire de bonchretien." The tumour was detached on the eighth day, and the patient did well.

" M. Guyot relates a case where he saw a female, five hours after delivery, in whom a polypus the size of a fœtal head at term was attached, by a flat pedicle two fingers' breadth, to the interior and right side of the womb. It had presented before the head, but there was no loss of blood. On the following day, on account of pains in the groin and loins, he determined to remove it, which he accomplished with perfect success, by ligature and excision."—(Oldham.)

Dr. Montgomery's paper, already quoted, contains the history of a very interesting case, in which he ligatured a large polypus within three weeks after delivery, and with the most satisfactory result.

Dr. Radford was sent for on one occasion, to see an hospital patient who had been delivered naturally and easily on the

previous day. Considerable hemorrhage had taken place. "I found her," he writes, "pale, and the pulse frequent and small. The discharge generally dribbled, but took place frequently in gushes. She was much harassed by violent bearing-down pains. The uterus was felt above the pubis, contracted, but rather larger than common. I now made an ordinary vaginal examination, but could discover nothing beyond the patulous os uteri. Not feeling satisfied with this mode of exploration, I passed the hand into the vagina, and the finger through the os uteri, when I felt a tumour about the size of a large pear, which was attached to the anterior part of the uterus towards the left side. It was pendulous, and, as far as I could ascertain, had a narrow pedicle. I judged it to be a polypus, and knowing the danger to be apprehended from the insidious bleedings which occur in these cases, I at once determined to pass a ligature round the pedicle, which was effected without much trouble. A plug was introduced into the vagina, and secured; and a bandage, with a compress, placed round the lower part of the abdomen. The ligature was tightened daily without pain, and on the eighth day the tumour was detached and the canula withdrawn." This patient perfectly recovered.

The foregoing histories will, I trust, sufficiently illustrate the course to be pursued in the treatment of secondary hemorrhage, when produced by polypus of the uterus.

For instructions as to the management of inversio uteri, when the cause of secondary hemorrhage, I must refer the reader to the various treatises upon the diseases of women, and especially to the monagraphs of Dr. Crosse and Mr. Newnham, as the limits to which I am necessarily restricted will not admit of my entering upon it here. This omission I have no reason to regret, as in the works referred to this subject is amply discussed.

I almost feel that, before concluding, some apology is due for the great length of this paper, which has run much beyond the extent originally designed. The only excuse I can offer

in extenuation of this fault (if such it be regarded) is, that it results from the number of cases detailed, and which I deemed it necessary to insert, as the subject of secondary hemorrhage after parturition is in some measure new, not having hitherto been made the object of any special investigation, or treated of in a distinct and connected manner[a].

Art. IX.—*On Pus in the Urine, as an Aid to the Diagnosis of some Diseases of the Genito-urinary System.* By John Hamilton, Surgeon to the Richmond Hospital, and Lecturer on Surgery in the Carmichael School of Medicine.

We observe pus in the urine under different aspects: first, as a uniform deposit, of a pale yellowish-white colour, sometimes a little shaggy on the surface, and falling down immediately after micturition, but which, by agitation or stirring, can be readily mixed through the urine in flocculent masses. To the naked eye it has the characters of pus, and by the microscope is found to consist of pus-globules. This pus is, in fact, pure, and the urine acid. Secondly, mixed with some mucus in *acid* urine, presenting a uniform, slightly tenacious, and slimy, yellowish-white deposit, showing on the field of the microscope irregular masses of pus-disks. And thirdly, after having been acted on by the ammonia in decomposed urine, as a thick, adherent, ropy mucus, with some transparency beneath, and exhibiting on the surface a stratum of yellow, opaque pus.

[a] Since the above paper went to press I have received Mr. Roberton's "Essays and Notes on the Physiology and Diseases of Women, and on Practical Midwifery," a work only just published. In it I find a section devoted to the consideration of "Secondary Uterine Hemorrhage," containing the results of the author's experience upon this subject. *Sixteen* examples of this species of flooding, many of which occurred to himself, are there recorded. In all these cases the hemorrhage took place within a month after delivery, and in *ten* of them within a fortnight. *Two* women sank under the loss of blood; all the rest recovered. In *ten* instances the attacks of hemorrhage occurred oftener than once.

Pure pus may get into the bladder from the bursting of an abscess in the adjacent areolar tissue, or some neighbouring organ. In women an abscess of the broad ligament of the uterus does so sometimes; and I have seen a case where dissolution seemed impending from apparent peritonitis, but the symptoms became suddenly alleviated on the supervention of vesical irritation, and the escape of a quantity of pure yellowish pus in the urine, which continued many months in gradually lessening quantity. After long-continued uterine irritation, an abscess had formed in the broad ligament; this abscess had become adherent to the side of the bladder, had broken, and discharged its contents into that viscus.

A young woman of the name of Nowlan was admitted into the Richmond Hospital, in June, 1846. She had chancres round the inner labia, with much œdematous swelling of the labia majora, and a bubo in each groin, which had broken before admission. The left opening healed, but the right continued to discharge, and the swelling was very large, from a number of the surrounding glands, particularly the deep glands in the iliac fossa, being engaged in its formation: in this direction a probe could be passed far, and deep-seated pressure caused matter to flow out. She soon became very ill, complained much of pain in the iliac fossa, extending down the thigh to the knee; she kept the thigh flexed, and could not bear pressure on the groin; her stomach became irritable; she had diarrhœa, and there was high fever. At last she was suddenly seized with much irritability of the bladder, and passed a quantity of yellow pus in the urine. The report for the next day was as follows: "She has passed since last night about a pint and a half of dirty, white-coloured urine, thick with pus, which is easily mixed up with the urine, and again slowly subsides. After having stood six hours, the pus occupied one-third of the fluid. The urine is very acid. The microscope[a]

[a] In all the microscopical investigations mentioned in this paper I had the able assistance of my friend, Dr. Frazer.

showed the yellow deposit to be composed of pus-globules." The quantity of pus gradually diminished to about an ounce and a half, then an ounce, and finally disappeared altogether, and she got well. From the moment the pus appeared in the urine all matter ceased to come by the external opening of the bubo, which rapidly closed up. In this instance, the matter, not getting free exit by the small fistulous passage of the external opening, accumulated; and a deep-seated abscess was formed, which made its way into the bladder. It may be observed that in such cases as this, the pure pus, entering the bladder from an abscess in the neighbouring part, causes no decomposition of the urine, even after long standing. Pus coming from an abscess in the substance of the kidney, though one of the urinary organs, does not produce a different result.

A man aged 50 was admitted into the Richmond Hospital October 28, 1846, with aggravated symptoms of stricture of the urethra, the result of a fall on the perineum six years before. There was a hard swelling on the perineum; this ended in an abscess, which I opened: it discharged pus and urine for a few days, but finally closed. No instrument could be got into the bladder. After the perineal abscess had quite healed, his urine still contained pus, a cloud of yellow matter in the centre of the lower stratum of the fluid, as if a table-spoonful of pus had been put into it. The urine was acid, and remained unchanged after having stood many hours. Though he had frequent calls to make water, I yet gave my opinion, that if there was any inflammation of the bladder it was slight (which proved to be the fact, its mucous membrane being found of a pale slaty-green colour, bloodshot here and there), and that the pus was not secreted by it; but that the appearance of the purulent matter, and the persistent acidity of the urine led me to believe it came from an abscess in some organ leading into the bladder, which organ I believed to be the kidney, from the pain he suffered across the loins, the lassitude, emaciation, liability to urinary rigors, and vomiting. He finally sank

under obstinate diarrhœa. On examination, the cortical substance of both kidneys was found full of abscesses, some the size of peas, others of nuts or chesnuts. The left kidney was double its natural size.

In acute abscess of the prostate gland, when the abscess bursts, the matter sometimes flows into the bladder as well as out along the urethra; and as there is much irritability, pain, and frequency in making water, the disease may, and has been, mistaken for inflammation of the mucous membrane of the bladder, and treated accordingly. But when the symptoms depend on inflammation of the prostate gland alone, though the urine contains much pus and is turbid, yet the deposit of yellow matter begins immediately after micturition; and it has all the physical characters of pus to the naked eye and under the microscope. The urine will be *acid*, and *continue acid* after having stood many hours; and even in those cases where the enlargement of the inflamed gland is very great, so as to prevent the whole of the urine from being expelled from the bladder, when what remains is drawn off, though often very turbid, it will be found to be acid. Of this I could give many examples.

In chronic or scrofulous abscess of the prostate gland, pus also frequently flows into the bladder. It is a very obscure disease, and one of the most intractable I am acquainted with. Both with respect to prognosis, and also to avoid the exhibition of useless or injurious remedies, it is most important to distinguish it from chronic cystitis, with which it is sometimes confounded. The two following are instances of this distressing complaint.

Mr. L., aged 26, is greatly distressed by a frequent necessity of passing water, at least ten times during the night, so that he can scarcely get any rest, and his general health is greatly impaired. He is obliged to strain, as there is some difficulty, and he has observed a little whitish matter to flow

from the urethra when the water first comes, and also at the end: this I saw myself. The urine is very pale, slightly turbid, and *deposits at once* a whitish, flocculent sediment, which is purulent in appearance, and is shown by the microscope to be composed of pus-globules; it is faintly acid when passed, and *continues so* after having stood twenty-four hours. By the finger in the rectum I could feel a corded thickening along the *prostatic* and membranous portions of the urethra, and a general soft fulness of the prostate, but no well-defined swelling or hardness.

His pulse was quick; his tongue loaded; he had great thirst, bad appetite, and general lassitude. Two years before, without previous gonorrhœa, he became affected with much pain at the neck of the bladder, and frequent calls to make water; this was followed by a sudden gush of matter, and a greater freedom in passing water. He continued to pass matter; his symptoms became very aggravated; he had great pain and frequent calls; the urine deposited slime and blood, and for a long time he seems to have suffered dreadfully from acute cystitis, the inflammation having extended from the neck of the bladder to the mucous membrane of the bladder itself; but the obstruction from the former necessitated the daily introduction of the gum-elastic catheter. After much and varied treatment the first violence of the disease abated, when his present distressing condition commenced.

I regarded his symptoms now to depend on a chronic abscess in the prostate gland, constantly discharging more or less pus into the bladder; and that the frequent calls did not depend on inflammation of the mucous membrane of the bladder, but were due to the swelling of the prostate at the neck of the bladder, which not only caused the difficulty of passing water that he experienced, but also prevented him from ever completely emptying the bladder. I therefore passed a No. 9 silver catheter; it met with that general resistance of the urethra,

from swelling of its sides, which I have already noticed to be present when the prostate is inflamed[a], and which was overcome by very gradual pressure. The instrument required the hand to be very much depressed to enable it to enter the bladder; and though he had just made water at my desire, and passed six ounces, I yet drew off four ounces more which had remained behind in the bladder.

It is not my intention at present to describe the further progress or treatment of this case; it is enough to observe that the number of calls to pass water during the night was at once reduced from ten to three times, above which it has never since got, and his general health is wonderfully better, but the quality of the water remains unchanged.

Received into a glass immediately after being passed, it is observed to be of a pale, limpid, and slightly opalescent appearance, throwing down at once an irregular cloudy or shreddy, opaque, yellowish-white deposit. It is acid. At the end of twenty-four hours the deposit settles down into a uniform, yellowish sediment, exhibiting at the edges a regular stratiform arrangement, gradually thinning away. It is adherent to the bottom of the glass, but there is not the least ropiness. The urine above the deposit is quite clear, as limpid as distilled water. It is still *acid.*

Mr. O., aged 45, consulted me in January, 1850; he was pale, languid, and sickly-looking, his face strongly indicative of suffering. He complained of great frequency in passing water, every half-hour during the day and night; it comes in a small stream, and requires forcing, and there is some sharp pain towards the end, but not severe; he has a full feel in the rectum, with pain darting from it down to the perineum.

Four years ago he contracted gonorrhœa, and a year afterwards the present affection began. He has consulted several medical men with only temporary and partial relief.

[a] See the Number of this Journal for May, 1850.

The urine is very pale, slightly turbid, with shreds through it, but no blood or slimy deposit. By the finger in the rectum the prostate can be felt very large, so that the point of the finger cannot be got beyond it. It is rather soft, but not fluctuating; anteriorly there is hardness, which extends along the urethra for some distance: the whole is tender on pressure.

I passed a No. 8 gum-elastic catheter without the stilet; it met with the usual obstruction at the neck of the bladder from enlarged prostate, but went on by tilting the point up by the finger in the rectum. Though he had passed water ten minutes before, I drew off six ounces, showing the want of power to empty the bladder completely.

The urine was examined after having stood eighteen hours: it was slightly *acid*, with a sediment of pus-globules, but no mucus.

In this case there was incontinence of urine at night, for the same reason as in the enlargement of the prostate in old men; in both cases the circular fibres at the neck of the bladder cannot act efficiently in completely closing the orifice, owing to the firm, inelastic structure of the diseased prostate. At night a larger quantity of urine accumulates during sleep, and then the incontinence begins; whereas, in the day the irritation being at once attended to, it seldom attains quantity enough to overflow through the imperfectly closed internal meatus.

A little more than a month after I first saw him, I found four ounces still remaining in the bladder, which he was unable to pass. As it was drawn off, the last few drops consisted of shreddy pus; in other respects it was as before, continuing *acid* after having stood many hours.

I have now adduced sufficient examples of one set of cases, viz., those in which pus is present in the urine, but not secreted by the mucous membrane of the bladder. The pus in these cases is little changed, the chief alteration being, perhaps, that the soft texture of its globules is somewhat broken up by the action

of the fluid in which it is present. The urine also is little changed, as far as the power of resisting decomposition is concerned. It is *acid, and remains acid* after having stood many hours.

With these let me now contrast some cases of inflammation of the bladder, in which pus, secreted by the vesical mucous membrane, exists in the urine. A very essential distinction will be perceived.

The mucous membrane of the bladder, as is well known, in common with other mucous membranes, the Schneiderian, bronchial, urethral, &c., when inflamed, soon secretes pus, but at the same time pours into the bladder, to mix with the urine, a vitiated mucous secretion, which seems to impart to the urine a disposition to speedy decomposition.

The urine in these cases enters the bladder, from the kidney, acid, and becomes mixed with the purulent and mucous secretions of the inflamed membrane; if these are not very abundant, the urine continues acid in the bladder and is passed so, but on standing for some time the deposited secretions become decomposed, and ammonia is generated, which acts on the pus, throwing it down as a thick, slimy, ropy mucus; it also combines with the phosphate of magnesia already in the urine, constituting an insoluble salt, the triple phosphate, which either floats as an iridescent pellicle on the surface of the urine, or, in prismatic crystals, is fixed in the ropy mucous deposit at the bottom. The amorphous phosphate of lime is also frequently thrown down as a light powder of an ochry colour, and forms a sediment on the surface of the ropy mucus. A deep yellow deposit of urate of ammonia is more rarely met with.

If, as in a case of paraplegia from broken or diseased spine, the urine is long retained in the bladder, and from the inability of the patient to move, is kept pretty tranquil, it undergoes these changes, the deposit takes place in the bladder itself, and the decomposition of the urine next to the deposit is in progress, while the portion of urine above it may remain acid; but when

the inflammation gets more intense, and the morbid decomposing secretions very abundant, the whole of the urine will be rendered alkaline in the bladder. If the water be now drawn off it is found turbid, and full of flakes of pus, and ropy mucus clogs up the eye of the catheter, or comes through it in semi-transparent strings. It has also a pungent ammoniacal odour.

James Holland, aged 25, a labourer of robust frame, was brought to the hospital, December 13, 1845, with the spine fractured across, the first and second lumbar vertebræ having been crushed by a large iron boiler which had rolled down on him. He had complete paralysis of sensation and motion of the lower extremities, and retention of urine, and after living for eight weeks he sank under the accident and its consequences, viz., extensive stripping of the back, erysipelas, and inflammation of the bladder. From the first he required the use of the catheter. The urine drawn off was high-coloured, scanty, and acid.

Fifty or sixty hours after the accident he began to suffer from irritability of the bladder, and required the instrument to be more frequently passed, three times a day; he also complained of a burning feel in the bladder, which was very tender on pressure. On the fourth day the urine was not so intensely acid, and there was some stillicidium. On the eighth day a pint of acid urine was taken away, and from the eye of the catheter a string of mucus was drawn out, which turned reddened litmus paper blue; in the evening there was so much of this mucus that it clogged up the instrument, and rendered it difficult to withdraw the urine, which was, moreover, turbid with mucous shreds. It was evident the bladder had become inflamed, and that there was an increased secretion of mucus and pus; the decomposition of the urine converting the latter into ropy mucus. On the seventeenth day, the urine drawn off was alkaline; it was very thick, particularly at the latter end, and of an opaque milk-white colour, and on standing there was a copious ropy mucous deposit. The next change was, that it became bloody,

and continued so till his death, which took place on the 13th of February. On one occasion Messrs. Green and Frazer, by my desire, washed the bladder with tepid water, to see if, after the remaining alkaline urine or deposited mucus was removed, the urine which entered the bladder immediately after, was acid. Besides a fracture of the second lumbar vertebra, penetrating through the dura mater and pressing on the spinal marrow, with ramollissement of the latter at the seat of the injury, the bladder was found contracted, its coats thickened to a remarkable degree; and the mucous membrane of a deep red colour, with here and there, particularly on the prominences of the rugæ, a deposit of a yellowish-grey substance,—amorphous phosphate of lime, I believe. The calices of the kidneys contained some purulent matter.

A man, aged 75, was admitted into No. 9 ward of the Richmond Hospital, in December, 1850, with retention of urine. The resident pupil failed in relieving him, but I introduced a large gum elastic catheter, and drew off a considerable quantity of pale urine, followed by some blood. The prostate gland could be felt greatly enlarged, forming a tumour in the rectum equal in size to an orange. He was never able to pass water, and his death took place about a fortnight after his admission. In the various attempts which had been made to introduce an instrument, the prostate must have been wounded, as there was considerable hemorrhage into the bladder. The blood coagulated in it tinged the urine a reddish colour, and came away in clots through the catheter, or blocked up its eye and stopped the flow of urine, until it was removed by the injection of a little water. Symptoms of violent inflammation of the bladder soon manifested themselves; pain and tenderness over the pubis; incessant straining, and desire to have the catheter introduced frequently; hot skin; quick, feeble pulse; and dry, brown tongue. The urine drawn off was rather turbid, had a pungent ammoniacal smell, was highly alkaline, and

on standing threw down a copious deposit of ropy mucus tinged with blood, above which was a layer of yellow pus.

I have at present in the Richmond Hospital, under my care, a young man with extensive curvature of the dorsal vertebræ from caries, and, I believe, ramollissement of the medulla spinalis. There is complete paralysis of sensation and motion of the lower extremities, with incontinence of urine and partial retention. The urine is alkaline, with a pungent ammoniacal smell; turbid, with shreds of pus through it; and on standing throws down a copious deposit of ropy mucus, a yellow layer of pus-globules on its surface and a deep yellow powdery stratum of urate of ammonia. There are also an iridescent pellicle of triple phosphate on the surface, and numerous crystals of the same salt through the deposit at the bottom. All these changes take place in the bladder, a large-eyed catheter being required to draw off the water, from the quantity of thick mucus in it. I washed out the bladder with tepid water, and left the catheter in it for an hour: when the plug was removed, the urine that flowed out was found quite acid, proving what I have already stated, that the urine does enter the bladder from the kidneys, when they are sound, acid, but quickly becomes decomposed in that organ when the morbid mucous secretion from the inflamed bladder is abundant.

In all these cases pus was present in the urine in the bladder, not, as in the first series, having come from neighbouring organs, but being secreted by the intensely inflamed mucous membrane, which at the same time produced other morbid secretions that caused the urine to deteriorate rapidly, so rapidly that when, from paralysis or mechanical obstruction, it was retained any time, the decomposition began in the viscus itself, thus offering a striking and distinguishing mark from the cases in which other organs furnished the matter, and where the urine continued acid even after having stood twenty-four, thirty-six,

and forty-eight hours. When, therefore, we find urine containing pus to be alkaline, and to deposit ropy mucus, we may conceive the bladder to be inflamed; whereas matter in urine, which continues acid after having stood many hours, has come from an abscess which has broken into the bladder. This is analogous with those cases in which blood is mixed with the urine. Blood is little changed by the urine, except mechanically, and it causes no disposition to alkalization. I mixed some recently drawn blood with urine, and at the end of twenty-six hours the latter was acid and unchanged, except in colour, pale pink and clear above the clot deposited at the bottom. When blood comes from the inflamed vesical mucous membrane, like pus under similar circumstances, it is present with alkaline urine and ropy mucous deposit, but like pus it has not *per se* any decomposing influence.

I could easily multiply cases of this description, but I think sufficient evidence has been adduced in support of the above opinions; and by keeping in mind the distinction of the different qualities of purulent urine, we shall be assisted materially in our diagnosis as to the source of the pus. Even in cases which would otherwise present great difficulties, this distinction will avail us in clearing them away, and in leading to a right mode of treatment, the aim of all our investigations.

The following complicated case exhibits the difficulties by which we are occasionally beset.

Thomas Lennon, aged 45, a mason, was admitted into the Richmond Hospital with retention of urine, April 11, 1849. It was found to depend on a large calculus imbedded in the bulbous portion of the urethra, which had been there for a year and a half, gradually enlarging. A former retention had been relieved by an abscess which had opened in the perineum and discharged pus and urine for a short time, and then nearly closed. I removed by incision a calculus a little less than a walnut in size. The incision terminated, as is often the case after the removal of large urethral stones, in a urinary fistula,

which was, however, rapidly closing under the use of instruments passed every second day, when he left the hospital on some business, promising to return in a short time, for the complete cure of the fistula. I saw nothing of him, however, until June 27, 1850, more than a year afterwards, when I found the fistula still unclosed, a large quantity of urine coming by it, and the stream from the natural orifice very small, owing to the contraction of the urethra at the former seat of the calculus. By a peculiar mode of treatment, which I shall describe on another occasion, I completely cured this fistula in five days, when he left the hospital, with the promise to come twice weekly, to have instruments introduced to prevent contraction of the urethra. This, with a carelessness too common in his class, he neglected to do; but three months after, October 22, he came to the hospital, the fistula having re-opened. With difficulty I got a No. 6 silver catheter into the bladder, and I determined to dilate the stricture fully before again attempting to cure the fistula. The dilatation was much slower than I anticipated; and having got a No. 8 gum elastic catheter in, I altered my previous resolution, and tried to relieve him of the inconvenience of the urinary fistula. It was quite closed on November 29th, for twenty-four hours, when it opened afresh, and I now became sensible that the urethra was obstructed beyond the stricture at the bulb, and that it was difficult to overcome an impediment at the neck of the bladder. He had for some little time previously suffered from irritability of the bladder, and this now increased very much, so as to keep him awake during the night; but there was nothing peculiar in the urine. I felt by the rectum the prostate gland much enlarged, but soft; and on the 31st December, in drawing off the water, as I was removing the catheter, a sudden gush of yellow flocculent matter came out, at least half an ounce in quantity. It was now, therefore, clear that an abscess in the prostate had been slowly forming, which had lessened the stream of urine, impeded the progress of amendment by instruments, and, from its conti-

nuous irritation along the urethra, prevented the fistula being closed by the same treatment that had previously succeeded. After this the irritation was somewhat lessened, and the urine passed freer, and contained small quantities of flocculent pus. The amendment was only short; he became very ill, had rigors, great frequency in passing water,—every five or ten minutes,—hot skin, quick pulse, dry tongue, and, after a time, diarrhœa, with loss of flesh, and night-sweats. The urine underwent a decided change; it became *alkaline* after standing, and, besides pus, threw down a copious deposit of ropy mucus, adherent to the bottom of the vessel; in short, the inflammation had extended from the prostate to the mucous membrane of the bladder. I found he could not completely empty the bladder, in consequence of the swelling of the prostate, as, after he had passed water, I drew off six ounces of neutral urine.

December 23. The urine he passed yesterday, and which has stood for twenty-four hours, is very characteristic of acute cystitis. It is alkaline, contains carbonate of ammonia, and has an iridescent pellicle of triple phosphate crystals on the surface; there is a thick deposit of adherent ropy mucus, with a layer of yellow pus over it; many triple phosphate crystals are seen by the microscope through the ropy mucus. Wishing to examine the urine recently passed, I got him to make water in a glass. It was pale yellow, turbid, and deposited at once a layer of pale yellow pus, one-eighth of an inch thick (most probably chiefly from the prostatic abscess). When this deposit was stirred, it rose in flakes, which quickly fell to the bottom again. Before the urine cooled, iridescent pellicles of the triple phosphate were evident on its surface. The urine was alkaline, but not so much so as that which had stood twenty-four hours, the reddened litmus paper being less intensely blued. I waited ten or fifteen minutes, and then drew off the urine that remained in the bladder; as he had improved in the power of expelling it, there were only between two and three ounces. Though turbid with pus, yet it was faintly *acid*. This acidity arose, I think, from

some freshly secreted acid urine having entered the bladder, and become mixed with the detained urine there, the time being too short for decomposition. Two days after, I drew off some neutral urine, and then allowed the catheter to remain in the bladder five minutes. I tested the few drops as they came from the catheter, and found them quite acid. Under careful treatment, he slowly but steadily improved. On the 7th of January, some urine which had been a long time in the bladder, and which I drew off, was acid; and all the water passed from the 7th to the 8th, about three pints, after having stood for many hours, was faintly acid; there was no pellicle, and no ropy deposit, only a central cloud observable. He has no frequency, the water comes in a full stream, and he is beginning to pull up flesh. A No. 8 catheter enters the bladder readily. The fistula closed, and I saw him in February, perfectly well.

The cure of the inflammation of the bladder, at one time very severe, I attribute, in a great measure, to the *continued exhibition of alkalies*, although the urine was not only alkaline after long standing, but was even passed alkaline. This is a point on which I wish to lay great stress, as by some surgeons of high character, who have written on the subject, the direction is, "if the urine is acid, give alkalies; if alkaline, give acids"[a]. Now I think the fact which I have established in these cases of inflamed bladder, that, though the urine passed was highly alkaline, pungent even, from the presence of ammonia, yet it had entered the bladder acid, and most likely, therefore, irritating to the inflamed mucous membrane, will explain the good effects which I have invariably found to follow the use of alkalies. I removed, by lithotomy, a large, rough stone from the bladder of a gentleman, which I never could have done, had he not been prepared for the operation by these remedies. He suffered more from cystitis than any person I ever saw; incessant calls to make water, attended

[a] Sir B. Brodie. Inflammation of the Bladder, Lectures, 1842, p. 108. Sir P. Crampton, on Lithotrity, Dublin Quarterly Journal, February, 1846.

with great pain, straining, and prolapsus ani; urine bloody, ammoniacal, with copious ropy, mucous, and purulent deposit, and abounding in triple phosphate. After all the usual routine of pareira, buchu, wild carrot, &c., various acids, large doses of opium, by the mouth or rectum, had totally failed to relieve him, the most striking amendment followed the use of the Vichy water, allowing the operation to be performed with a fair chance of success. Whatever the real rationale of the action of the liquor potassæ, the carbonate of soda or of potash, lime water, the Vichy water, real or artificial, may be, their soothing effect on the irritated or inflamed mucous membrane of the genito-urinary system cannot be denied, and we should not, therefore, be deterred from their use because the urine is alkaline, this condition being the result of decomposition, from the large quantity of vitiated secretion poured into it by the inflamed mucous membrane of the bladder. Whatever, therefore, tends to lessen this inflammation, which alkaline remedies seem to have the power to do, would, by lessening the morbid secretions, most speedily prevent the decomposing property of the urine, and restore it to its natural state.

In conclusion, I may observe, that the facts of the urine continuing acid, although containing pus, and the tendency to decomposition where mucus is secreted into it, have already been noticed by authors; by Dr. Golding Bird, in his invaluable little treatise on urinary deposits; by Simon, and others. But the connexion between these phenomena and particular pathological conditions did not appear to me to have been sufficiently elucidated to prevent an endeavour to aid so important an object.

Art. X.—*On a peculiar Form of Thrombus occurring during Labour.* By William F. Montgomery, A. M., M. D., Professor of Midwifery, &c., to the King and Queen's College of Physicians in Ireland.

There are two situations in which the formation of a thrombus or bloody tumour during natural labour is a matter of common observation, namely, on the head of the child, and at the vulva of the woman; but I think I have fully satisfied myself that there is a third variety of it to be met with in practice, invested with no little interest, and involving considerations of much practical importance,—where an effusion of blood takes place in the tissue of the uterus, near the os uteri, and more especially in the anterior lip of that organ.

On the first variety, or that which forms on the head of the child, I do not propose at present to make any observations. With regard to the second, it does not appear to have been recognised, or, at least, was not described by any English writer[a], until Dr. M'Bride of this city published an account of two cases of it in 1776[b]. Nor do I recollect to have met with an instance of it in my own practice for several years, until 1849, when I met with two within six weeks, the first on the 23rd August, and the second on the 4th October.

The former was in a lady with her first child; her labour was short and natural, with but little effort or straining, nor was I aware of the occurrence of the tumour until after delivery, when I found it on the edge of the left labium, but ruptured, and its contents partially discharged. The swelling subsided within a few days, and no subsequent inconvenience was ex-

[a] The following passage from Veslingius, in 1647, appears to describe this accident very exactly: "Alias jam bis observassem ab effuso intra tunicas vaginæ sanguine in partu difficili, pudendi labium ingenti tumore distensum fuisse, quo aperto, sanguineque atro paulatim evacuato, mulieres evasere." —*Obs.* 50.

[b] Medical Observations and Inquiries, vol. v. p. 89.

perienced from it. The lady, who was not young, recovered very favourably.

The second case occurred in a lady who had three or four premature children, and now for the first time, under my care, went to the full period of gestation. I was sent for at 6 o'clock, A. M., and her labour proceeded favourably during the next two hours; and at 8 o'clock I thought the child's head would be expelled in a few minutes. I now observed, however, that there existed a great fulness and thickness of the perineum and external parts, especially towards the left labium, which began to swell perceptibly, and, as it swelled, assumed a dark purple or blackish colour. It gradually became enormously enlarged, and the advance of the head was completely prevented, until at length, a little after 9 o'clock, the swelling burst on the inside, under the pressure of a pain, and a considerable quantity, not less than twelve ounces, of coagulated and fluid blood escaped. The pains almost immediately became effective, and the head advanced easily. The child, a girl, was born at half-past 9 o'clock, and all went on well; no hemorrhage of any consequence took place. Nothing was done except laying on a pledget of lint, wet with solution of alum, and making firm pressure with a napkin fastened to the binder.

The sloughs came away on the fourth and fifth days, without hemorrhage; the swelling of the labium and perineum gradually disappeared, and a clean open sore, of a healthy aspect, remained, which gradually healed, and was completely well at the end of four weeks.

The rupture of the vessel in this case took place in the perineum, and thence the effused blood percolated through the areolar tissue into the labium.

Two things particularly struck me when this occurrence took place:

1st. The immediate effect produced on the uterine contractions, which were at once impaired, both in frequency and power; and

2nd. The complete resistance which the tumour offered to the advance of the head.

It is a very rare occurrence in private practice. Several friends to whom I have spoken say they have never met with it among their patients.

M'Bride[a] witnessed only two cases, and Denman[b] only three, most of which occurred, or were first noticed, after the labour was over. Davis[c] mentions two or three. Dr. Clarke, who has recorded the results of 3878 deliveries in private practice, does not mention any instance of it.

In Dr. Collins' record, too, of 16,414 cases of delivery, there is not, I believe, any instance mentioned of this accident.

No unpleasant consequences attended the cases which occurred to me. Denman says:—"But I believe it is void of danger, not having seen or heard of any dangerous consequence from it, or ever found anything necessary to be done, but to wrap the tumefied part in a flannel wrung out of warm water and vinegar, and on the discharge of the coagula, which should not be hastened, to dress the little sore with some soft liniment."

Davis says, that "the subsequent hemorrhage was so moderate as to excite no alarm" (p. 46), and the lady's recovery was speedy and uninterrupted.

This is so far satisfactory, but all cases of this kind have not been so exempt from trouble or danger; very free and persistent hemorrhage having been occasionally found to cause the practitioner much anxiety; and in not a few instances the result has been fatal.

In a case of thrombus, which is reported in the Revue Mèdico-Chirurgicale, Mars, 1850, a thrombus formed during labour, and the attendant, a "sage femme," mistaking it for a bag of membranes protruded, unfortunately succeeded, under

[a] Medical Observations and Inquiries, vol. v. p. 89.

[b] Introduction to Midwifery, fifth edition, p. 627.

[c] Obstetric Medicine, p. 44.

that impression, in rupturing it, by which an opening was made, from which the blood poured "like water from a sponge."

The edges of the laceration were pinched up, and caught between a split stick, which completely arrested the hemorrhage. The woman, luckily, was not delivered for three days afterwards; no hemorrhage returned, and she did well.

In a case recorded by M. Stendel, the tumour burst during labour, six or seven pounds of blood were quickly poured out, and the patient expired.

Mr. Crosse, of Norwich, says, that in a case which he saw "during a protracted labour, rupture of the left labium took place, to the extent of two or three inches, followed by great loss of blood, and the patient died undelivered."

Within the last year I saw a case in which a thrombus, about as large as a good-sized red plum, formed in the left labium, in the seventh month of pregnancy, and gave the lady *intolerable annoyance*, so that on the 18th June I made a very small puncture into it, and discharged its contents; but on the 13th July I was again sent for, and found her in a similar state of distress, from pain caused by a feeling of weight and tension, of which she complained most grievously. She described the sensation she experienced as resembling that produced by the pressure of the child's head when distending the perineum. I found the tumour rather larger than before, and again punctured it, after which the lady suffered no further annoyance. It did not fill again, and on the 24th of August she was safely delivered of a full-grown child.

There was no appearance to mark the situation where the tumour had been; nor was there any attempt at its reproduction subsequently.

So far, all the cases alluded to have been of effusion into the external labia pudendi, but I think I have learned from sufficient observation that these are not the only situations in which thrombus occurs during, or in consequence of labour, but that quite a similar accident, though differing much in

degree, happens not unfrequently in the tissue of the cervix uteri, and especially in the substance of the anterior lip of the os, giving rise to a condition greatly resembling in some of its characters that which is generally spoken of as œdema of the part, from which, however, it is altogether a different affection.

The first time that this matter attracted my attention in practice was in the following case:

Mr. S. requested my attendance on his wife, on 11th March, 1830, at 10 o'clock P.M., she being then in labour.

The night before she had diarrhœa and some discharge of blood from the vagina; she had six children by a former marriage, and her last was now five years old.

I found her with labour established, and with some hemorrhage, but not much. One part of the lower portion of the cervix, towards the right side, felt very prominent, thickened, and spongy, so as most strikingly to resemble a portion of the placenta; and it appeared to me that it was from this part the hemorrhage was proceeding. The head presented naturally; the labour progressed favourably, and as the descending head came to press more forcibly into the os uteri, and on the spongy tumour, its contents were discharged; the hemorrhage ceased, and did not again return, and at half-past twelve o'clock a male child was born, healthy and vigorous. The placenta came away in about ten minutes. There was no further hemorrhage or other unfavourable symptom, and the lady recovered well.

Mr. S. was a medical man, and, seeing the hemorrhage, he became anxious, and made an examination, when he was greatly alarmed at feeling, as he thought, the placenta at the os uteri, and immediately sent for me.

After hearing his report, I examined the patient, and at the first moment thought his account was only too correct; but a little further examination easily satisfied me of the true state of the case, because it was clearly evident that the tumour resembling the placenta was not merely applied to the inner sur-

face of the uterus, but was identified with the substance of the organ, so that it was impossible to insinuate the point of the finger between them, while it could be readily passed behind or partially around.

To those who may not have met with this state of the parts, I would beg leave to say, that the resemblance of this tumour, when in the form in which it occurred in this case, to the placental structure, is sometimes so close as very readily to deceive an incautious examiner.

The circumstances under which we meet with this condition in practice are generally as follows: about the time when the os uteri is more than half dilated, especially if the waters have already been evacuated, we find that the anterior lip gets gradually, but pretty quickly, fuller, thicker, and more prominent, and, instead of yielding readily before the pressure of the head, and slipping away upwards, it continues to descend as the head is forced downwards; and if we try with the point of the finger to push it past the head, and out of the way, we do not succeed; an unexpected delay now takes place, and a labour which we have every reason to hope would go on quickly, and be completed within a short time, is protracted for perhaps two or three hours, or even more, and the patient's pain increased both in character and duration. At length the swollen labium diminishes, suddenly recedes, and disappears, and very often, at the same moment, some blood is discharged, generally of a deep rich colour, and now the retarded head descends more quickly.

I do not wish to be understood to say that the swollen lip in such cases always bursts and discharges its contents, for such is not the fact, but that this is frequently the result I feel quite assured.

I had recently (10th October, 1850) an opportunity of *seeing* this condition of the anterior lip of the os uteri during labour. The lady had four children, and her labour was in every respect satisfactory. Shortly after the discharge of the liquor

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amnii the pains became urgent, and the anterior lip of the os began to swell, and immediately, as in all other instances of thrombus that I have met with, the propulsive power of the pains was at once impaired, although they continued strong, and returned at short intervals; but still the swollen lip resisted the passage of the head, or at least did not yield, and continued to be pushed down with it, until with each pain it protruded under the arch of the pubis, *of a deep purple colour, like that of black currant jelly:* suddenly it disappeared, and one or two ounces of deep, rich coloured blood flowed away; the pains became in a few minutes much more efficient, and the labour was soon happily completed. The lady recovered well.

Is this accident an occurrence of little moment beyond the temporary delay and increased suffering which it causes? or is it one that may have dangerous results? are questions of no inconsiderable importance.

Were I to judge from my own experience alone, I should be bound to say, that I had found both forms of thrombus, the external and the internal, free from *fatal*, though liable to produce *serious* consequences; but the experience and observations of others have shown that the bursting of bloody tumours, wherever situated, has been often a source not alone of great danger, but sometimes even of death.

I have already alluded to the occasionally pernicious nature of the hemorrhage accompanying the thrombus of the external labium, and I recently heard the particulars of a case, and examined the uterus after death, in which, I think, death resulted from a thrombus in the substance of the cervix uteri.

The case to which I allude was brought under the notice of the Obstetrical Society by Dr. George Johnston, and is related at length in the present Number of this Journal.

The woman had an easy and apparently safe labour, with a breech presentation, and for three or four days afterwards went on perfectly well; but on the fifth day, greatly to the

surprise of those who saw the patient, and found the uterus well and firmly contracted, a profuse hemorrhage took place suddenly, and the patient sank within an hour and a half.

After death, it was ascertained that there was in the substance of the cervix uteri, close to the os, at the left side, a distinct cavity, capable of containing a small orange, into which opened the mouths of several blood-vessels.

After a careful inspection of the parts, I felt no doubt that this was an instance of the accident I have been describing; that in fact a thrombus had formed, the cavity of which was filled by a coagulum; that the thin stratum of uterine structure, or perhaps only mucous membrane and areolar tissue, interposed between the cavity of the thrombus and that of the uterus, was gradually attenuated, and at length burst, or sloughed away, allowing, of course, the coagulum to escape, and the open blood-vessels suddenly to pour out a torrent of blood, under the overwhelming influence of which life was extinguished within the awfully brief space of an hour and a half.

It is to be observed, that in the case of thrombus of the external labium, related at the commencement of these observations, the slough separated on the fourth and fifth days; and here, in the case now before us, the fatal gush of blood took place just at the same interval after labour.

It is but right to say of such a case, that it exhibits one of those unforeseen but perilous accidents against which no human care or caution could guard, or human skill be always available to save the patient's life.

In the month of July of last year, I saw a case which I have great reason to believe was of the kind now under consideration.

A lady affected with varicose veins, which extended all up the lower extremity, and could be traced into the vagina, was delivered, after a natural and favourable labour, at midnight; but shortly afterwards a fearful rush of blood took place, very unexpectedly, for *the uterus was well and firmly contracted.* So

great was the hemorrhage, that complete prostration was immediately produced, and when I saw her, she was cold and pulseless, nor had she any return of pulsation in the radial artery for six hours and a half from the time of the sudden hemorrhage, and during a part of that time the action of the heart could neither be felt nor heard. All this time the uterus remained perfectly contracted, but in the situation of the anterior lip its substance felt as if broken up into a soft pulp, the consequence, as I believe, of the formation and rupture of a bloody tumour. To our great joy, she ultimately rallied under the treatment adopted, and completely recovered.

I believe the formation of a thrombus at or near the os uteri, its rupture, and consequently open state of some vessel or vessels in the cavity thus formed, is very often the real cause of those hemorrhages after the birth of the child and expulsion of the placenta, where the uterus is found to be well and firmly contracted; and it is to be recollected, that just where the thrombus forms is precisely the situation in which the contractile power of the organ is most feeble; and should it happen towards either side, it is then close upon the very part where the blood-vessels send in the largest supply to the uterus.

And I would say, that while we should neglect no general or subsidiary means to check the hemorrhage, or secure the patient from its dangerous effects, our *greatest security*, under such circumstances, will be obtained by plugging the vagina, while, at the same time, we take the necessary precautions against allowing the uterus to relax and become distended with blood.

If the occurrence of this affection has been described or noticed by any former writer, I am not aware of it; but in the writings of two of our most eminent authorities in practical midwifery, I find in each a passage distinctly bearing upon the view I have here put forth, and, as far as they go, tending to confirm its truth.

At p. 271 of his "Introduction to Midwifery" (5th edit.),

the admirable Denman says:—"The uncoloured mucous discharge from the vagina, which pretty generally occurs before labour, on its accession is usually tinged with blood, or a small quantity of pure blood is discharged. This sanguineous discharge, which varies in quantity and appearance in different women, is popularly called a *show;* and it happens more particularly at two periods of a labour,—when the os uteri *begins* to dilate, and when it is finally dilated.

"In the first instance, it is probably occasioned by the separation of a few of those vessels by which the membrane which connects the ovum to the uterus was originally bound; and in the second case, by the effusion of some blood before *extravasated in the substance of the os uteri; for this part, in some cases, acquires an uncommon thickness from that cause, independent of any œdematous or inflammatory tumefaction.*"

And Dr. Burns observes, at p. 460 of his "Principles of Midwifery" (9th edit.):—"In tedious labour the os uteri, and even the cervix, sometimes becomes swelled, as if blood were effused into the substance."

Where such a condition is recognised during labour, we shall show our wisdom by interfering as little as possible with it; by abstaining from attempts to get the gorged lip of the os over or past the head; and when the head does descend, and is expelled, we should be more than usually slow to withdraw the body of the child, more than usually careful to secure complete uterine contraction, and more than usually watchful of the state of our patient after all is over; although we must, at the same time, acknowledge the painful truth, that, with all the care and caution that the most anxious circumspection can prompt to the adoption of, an accident of this kind may take place under circumstances of which we have no intimation, until alarmed by the urgent danger of our patient, or struck aghast by her unexpected and untimely death.

Art. XI.—*On Eruptive Diseases of the Face.* By J. Moore Neligan, M.D., M.R.I.A., Physician to Jervis-street Hospital, Lecturer on the Practice of Medicine in the Dublin School of Medicine, &c.

In the sixth volume of the present series of this Journal I brought before the profession some facts, as regarded the diagnosis and treatment of eruptive diseases of the scalp, which had been derived from my own experience of these affections; and, in continuation of the subject of cutaneous eruptions, as they affect special localities of the body, I propose at present to speak of those which more especially appear on the face. In eruptions of the scalp, as I then remarked, the diagnosis between the various forms is difficult, chiefly in consequence of its peculiar structure, and of the growth of the hair; and the latter in particular prevents their treatment from being as simple and successful as when they appear on other parts of the body. On the face we have not the same difficulties to contend with, not even in males, where the site of the beard is the part affected; and the only peculiarity that is here presented arises from this portion of the cuticular surface being constantly exposed to the air, and being, of necessity, subjected to constant ablutions. The hands are the only other parts of the body which partake of these conditions,—of the latter in a greater degree even than the face; and we consequently find that eruptive diseases appearing on them, present, in some respects, a similarity of character.

Cutaneous eruptions appear on the scalp most generally in early life, being rare after puberty, while they usually occur on the face about the age of puberty, or in adult life. The latter are consequently a greater source of annoyance to the patient than the former, to say nothing of their disfiguring effect, so apparent to the eye of all. In most persons the mental anxiety which they occasion renders their treatment more difficult than it would probably otherwise be; and in some individuals of a ner-

vous temperament I have seen their occurrence lay the foundation of serious and prolonged ill health. Their investigation cannot therefore be regarded as beneath the notice of the physician, nor undeserving of careful clinical observation; yet until within the last few years the specialties presented by diseases of the skin, as due to the particular portion of the cutaneous surface on which they appear, had been scarcely noticed, and even now do not seem to me to attract a merited attention.

I shall follow in this essay the plan which I adopted in the paper I have already alluded to, namely, confine my observations to those eruptions peculiar to the face, or appearing on it without being at the same time present on other parts of the body; deviating from this arrangement only so far as regards diseases which affect the scalp and the face simultaneously, or spread from the one to the other apparently owing to contiguity of surface. I shall not, moreover, refer to those eruptions which are the consequence of venereal diseases, and have been termed by modern dermatologists, syphilides; because, as their development is dependent on a specific cause, they require a *special* plan of treatment, which could not be well described apart from a general consideration of venereal affections.

The predisposing causes of eruptions of the face are equally obscure with those of cutaneous diseases generally; yet there are certain habits of body in which they are especially apt to be developed, and foremost of these I would place the *scrofulous*. In an essay which I published in this Journal[a] on Scaly Diseases of the Skin, I have attempted to prove the connexion which exists between their occurrence and this diathesis, and I think general experience will bear me out in stating that eruptions on the face are most commonly met with in scrofulous individuals. Hereditary predisposition also is manifestly a very constant predisposing cause. And to these, I think, may be added two peculiar conditions of the skin which are very

[a] New Series, vol. viii. p. 348.

opposite to each other, the one, in which the cuticular surface is peculiarly fine, apparently thin and transparent, fair, and abounding in clear blue veins, and the other, in which it is coarse, sallow, greasy, and shining, with thickly-set sebaceous glands. It must be remarked, however, that both are regarded as accompaniments of the scrofulous constitution.

Amongst the exciting causes may be enumerated constant exposure of the face to the heat of the fire, especially after meals, or to dry harsh winds: the former usually produces some of the forms of pustular or tubercular eruptions, the latter papular or vesicular diseases; the use of rich articles of food or of spirituous liquors; habits of anger or sudden excitement; anxiety of mind; constipation; local irritants; and, in short, everything which causes determination of blood to the face.

I cannot adopt the same classification of eruptions of the face which I did of those that occur on the scalp, namely, into inflammatory and non-inflammatory; for, in my experience, all the forms which appear there present a more or less inflammatory character in some part of their course. I shall, therefore, following the classification, and, to a great extent, the nomenclature of Willan, simply enumerate their generic names. The terms proposed by our great English dermatologist indicate, as I have already remarked on a previous occasion, with sufficient accuracy, the distinctive characters of these diseases; and by their adoption we insure simplicity in nomenclature, and avoid the confusion which arises from proposing new names. The following are the eruptions of the face which I mean to describe as peculiar,—in the view I have said I would use that term,—to that part of the cutaneous surface, namely, acne, impetigo, lichen, herpes, eczema, psoriasis, sycosis, porrigo, and lupus.

Acne.—This, by far the most frequent of the cutaneous diseases of the face, is a pustular eruption, though classed by Willan and Bateman amongst the tubercles. By some of the French and German writers it is termed Varus, the name that was applied to

it by the Greek and Latin physicians. No matter what form it may present, it is essentially an inflammatory affection of the sebaceous follicles, and, consequently, appears most frequently on the parts of the face where these glands are most numerous, as on the nose and chin. It may occur in the form of single or scattered pustules, without any redness of the surrounding cuticular surface, though the base of each pustule is usually more or less hardened. Or it may appear in clusters thickly set on the inflamed skin, which is of a rose-red or crimson colour. And, when the disease becomes chronic, the sub-cutaneous areolar tissue is also inflamed, lymph is effused into it, and the eruption assumes a decidedly tubercular character. Three distinct varieties of acne are thus constituted: acne simplex, acne rosacea, and acne indurata.

The first of these varieties is very common, few young persons at the age of puberty being altogether free from its occasional occurrence, individuals with the coarse greasy skin, described above, being, however, particularly liable to it. In such persons the sebaceous follicles are peculiarly developed, secreting copiously the thick curd-like matter which naturally exists in them; individual follicles, apparently obstructed at the orifice, become distended, and present a black point at their apex (acne punctata); they then take on an inflammatory action, and are converted into pustules, which usually run a chronic course. It cannot be said that the appearance of this form of eruption on the face depends on any special cause, except that of constitutional predisposition; nor is it attended with any ill effects, beyond the annoying, though temporary, disfigurement which it occasions. I do not think moreover, that it is apt to assume a chronic character, the pustules gradually ceasing to be formed soon after puberty. Persons, however, who, when young, suffer from acne simplex, are more liable than others to be affected with either of the other varieties of the disease.

Acne simplex can scarcely be confounded with any other

eruption of the face. Pustules of ecthyma sometimes, though rarely, appear on this part of the cuticular surface, but they are readily diagnosed by their large size and phlyzacious[a] character, and are invariably present at the same time on other parts of the body.

When pustules of acne simplex form on the face, the sooner they are opened, and the curdy matter they contain pressed out of them, the more rapidly they disappear. In persons predisposed to them, I have found the best preventive treatment to consist in the use of carbonate of soda instead of soap to wash the face, and in the application of a spirituous lotion, consisting of two drachms of oil of lemon and half a drachm of oil of rosemary in a pint of rectified spirit, immediately after the face is washed. Should the eruption accompany a constipated state of the bowels, as it sometimes does, the use of mild saline cathartics, more especially in the form of the natural mineral waters, as those of Pullna,—which I have found especially useful,—will be requisite.

Acne rosacea is generally a disease of more advanced life than the form now described, and, unlike it, is very apt to assume a chronic character, not unfrequently terminating in the third variety. It is also more inflammatory in its nature. It generally commences as a cluster of minute pustules, hard and but little elevated, on a reddened patch of the skin. These pustules or pimples enlarge gradually, but are slow to maturate, and their base becomes harder, often very painful, and much inflamed. When they eventually burst, or are opened, they discharge a small quantity of a curdy pus, but the hardness of the surface still continues, and the red or crimson patch often remains on the face for months, or sometimes for years, spreading gradually over the nose, cheeks, and chin, and constantly giving origin to fresh crops of similar pustules. The disease

[a] Phlyzacium. "A large pustule raised on a hard circular base, of a vivid red colour. It is succeeded by a thick, hard, dark-coloured scab."—*Willan.*

is thus usually of an aggravated character, and, from its unsightly appearance, causes great mental annoyance. It is also very rebellious to treatment, and, even when apparently completely cured, exceedingly apt to return.

This form of acne is frequently connected with the state of the uterine function in the female, in many cases appearing for the first time, in those predisposed to it, at the turn of life; it also occasionally, but much more rarely, attacks the face of young girls about the period of first menstruation; and when it does so, they are very liable to constant returns of it on the least exciting cause, particularly any of those I have already adverted to. It is also a constant accompaniment of a deranged condition of the digestive organs, especially when attended with constipation; and in many persons is evidently caused by indulgence in the pleasures of the table, particularly a too free use of rich wines or of spirituous liquors. Prolonged or extreme mental excitement is also a frequent exciting cause of acne rosacea.

Where this eruption appears to be dependent on, or to be connected with any of these causes, the first step in treatment should, of course, be directed to them; but the use of local applications should not be, in the mean time, overlooked. When it is seen in its early stages, or when there is much inflammatory action present, the application of leeches behind the ears two or three times a week, at bed-time, will be found of much service, together with the daily use of Pullna or some other saline cathartic mineral water, taken an hour or two before breakfast. The dose of Pullna water, which I ordinarily prescribe, is from one to two wine-glassfuls mixed with an equal quantity of tepid water. For persons who are unable to purchase mineral waters, I order the compound saline powder, prepared as I have recommended in my work on Medicines[a]. Having by these means subdued the inflammatory condition

[a] Third edition, p. 107.

where it exists, I then commence the use of iodide of potassium in the decoction of elm-bark, adding, in some very obstinate cases, an eighth of a grain of iodine to each dose of the iodide. Of the numerous local applications which I have tried in the treatment of this form of acne, I have found none so useful as the ammonio-chloride of mercury (white precipitate) in the form of ointment, in the proportion of twelve grains to the ounce of spermaceti cerate, to which three minims of the oil of bitter almonds are added. This ointment is applied at night, and washed off in the morning with an alkaline wash, —half a drachm of the carbonate of soda to eight ounces of water. In cases in which the skin of the face is harsh and dry, and inclined to crack or bleed, I order from two fluid drachms to half a fluid ounce of glycerine to be added to this wash. Carbonate of soda should also be used, instead of soap, to wash the face. For men who are compelled to shave, a sufficient lather is easily raised, by first smearing a very little olive or almond oil on the face, and applying the shaving-brush, dipped in a saturated solution of carbonate of soda in soft water, over it. The diet should be carefully attended to, simplicity being strictly enforced, and all the exciting causes, especially the use of spirituous liquors, and exposure of the face to the heat of the fire or to harsh winds, carefully avoided. The following case illustrates these views.

February 6, 1850. Mr. ——, aged 43, came up to town from the North of Ireland, to consult me for an eruption on his face. It first appeared about two years since, at the side of his nose, in the form of small pimples, which were very hard and painful, and after some time broke, but without giving exit to much matter, and left a crimson stain on the skin. From that time the crimson colour has been gradually extending over his face, and now occupies the nose, both cheeks, the chin, and the forehead, disfiguring him very much. The surface is raised and thickened, and pustules are constantly forming on it; it is also attended with constant itching, especially

when he is heated from any cause, and is so painful, that he dreads the operation of shaving. He states that since he was fifteen years of age, he has always been liable to the occasional appearance of what he terms "little boils" on the face; but he ascribes the origin of the present attack to prolonged anxiety of mind, at a time of the year when the weather was very harsh, and when he was compelled to be constantly in the open air. He has always lived temperately, both as regards eating and drinking, and he has never suffered from dyspepsia in any form, nor from constipation. I ordered him to take every night, at bed-time, two ounces of a mixture consisting of twelve grains of the iodide of potassium dissolved in twelve fluid ounces of decoction of fresh elm-bark, and to smear the face thickly before lying down in bed with the following ointment: white precipitate ointment[a], two drachms; simple cerate, six drachms; oil of bitter almonds, three minims. The ointment was to be washed off in the morning with a lotion containing half a drachm of carbonate of soda in eight fluid ounces of elder-flower water. He was also ordered to use soda instead of soap for washing his face, even when shaving; and to avoid exposure to harsh winds, or to the heat of the fire, as much as possible. On June 26, 1850, this gentleman, happening to be in town, called on me, to let me see the amendment that had taken place in his face; it was at that time almost perfectly free from the redness, and there were but one or two pustules of acne visible on the forehead and chin. I directed him still to persist in the treatment I had laid down for him; and in January of this year he wrote to me, stating that he considered himself to be quite recovered.

Acne indurata, though in nearly every instance apparently an aggravated form of acne rosacea, in some cases presents an *indurated* and *tuberculated* character from its first

[a] This ointment has been omitted from the new edition of the Dublin Pharmacopœia; it was of the same strength as that of London and Edinburgh, containing a drachm of the white precipitate to an ounce and a half of lard.

appearance. In the latter case it is usually confined to the nose and one cheek, while in the former it may extend to the whole face. It is characterized by the eruption being much elevated over the surface of the skin, which is of a dark rose-red hue, and consisting of conoidal pustules about the size of a pea, extremely hard and tuberculated, and presenting minute points of suppuration at the apex. These pustules are not very painful to the touch; they do not scab over, but whenever they maturate and burst they leave a cicatrix or pit resembling that of small-pox. It is of a very obstinate character, and in some cases seems to defy all remedial measures. The following case exhibits the character of this eruption, and the remedies which I have found to be most successful in its treatment.

Michael Linehan, aged 20, a baker by trade, was admitted into Jervis-street Hospital, May 23, 1850. He suffers from an eruption on the left side of his nose and left cheek, which has been there for more than eight months, and which he believes was originally produced by the irritation of the fine particles of flour getting up into his nostrils, and compelling him constantly to pick and rub them. There are three tubercles on the ala of the the nose, and two on the cheek, each about the size of a large pea, of a deep red colour, with minute pustular points; they are extremely hard, coalesce at the base, are not very painful to the touch, and do not cause much annoyance from itching, unless when the face is heated. The skin of the entire nose and of the left cheek is of a red-rose colour, thickened, with stellated superficial veins all over it, and several spots of acne simplex. It is also pitted with the bluish cicatrices of old pustules. The sebaceous glands on the rest of the face are enlarged, and most of them present black points. His bowels have been latterly much constipated, and when they are so he has remarked that the face is always worse. He has used various local applications to the eruption, and also taken a great deal of medicine, but the disease has continued to progress steadily, though slowly.

The appearance of the face at first sight, together with the patient's youth, rendered the eruption in his case liable to be mistaken for lupus; but the absence of any tendency to ulceration, the history of the progress of the disease, and its still decidedly pustular character, served to diagnose it from that affection.

He was treated by the abstraction of four ounces of blood, by cupping, from the nape of the neck, once a week; by the daily use of saline cathartics; by the application, twice a day, of an ointment containing fifteen grains of the iodide of sulphur, gradually increased to half a drachm, to the ounce of lard, and the employment, before each application of the ointment, of an alkaline wash,—half a drachm of carbonate of soda to sixteen fluid ounces of distilled water. He was also kept confined to the wards of the hospital. On the 8th of August he was sufficiently well to leave the hospital, but there were some hardness, swelling, and redness still left, which did not, however, seem to have increased in three months afterwards, when he presented himself at the dispensary, although he had used no remedial measures in the interval.

Impetigo.—In my essay on diseases of the scalp, to which I have already referred, I described the characters of this eruption; it rarely appears on the face unless when it spreads there from the scalp, which it very generally does in children and young persons.

In its early stages it is of a highly inflammatory character, and is much aggravated should stimulant or astringent applications be used to it. Local bleeding, by leeches behind the ears, the daily administration of mild saline cathartics, and the employment of alkaline ointments (half a drachm of the bicarbonate of soda and a fluid drachm of glycerine to the ounce of spermaceti cerate), and weak alkaline washes (half a drachm of the carbonate of soda and half a fluid ounce of glycerine to

the pint of elder-flower water), constitute the plan of treatment I have found most beneficial, while it retains its inflammatory character. In the chronic stages, I have derived most benefit from minute doses of the iodide of mercury internally, and from the local application of the sulphate of iron, in the form of ointment, in the proportion of from two to five grains of the dried sulphate to the ounce of cerate, employing, at the same time, the alkaline wash above described. In children of a sanguine temperament I have found this ointment too stimulating, even in the most chronic stages of the disease; and with them I have derived most benefit from the use of the acetate of zinc lotion, twelve grains of the salt and two drachms of glycerine to eight ounces of distilled water. This treatment I have also used latterly, with excellent effect, in chronic impetigo of the scalp.

Lichen.—Of the many forms of this eruption described by dermatologists, all are occasionally met with on the face; but that which is most generally developed there is lichen agrius. It is a *papular* eruption, and appears usually on the forehead, commencing as a mass of minute papules, clustered together on a red patch of skin. They are usually very numerous, shining and acuminate; they do not enlarge in size, but, being attended with much inflammation, lymph is effused at their base into the subcutaneous areolar tissue, and the portion of the skin on which they are situated becomes, consequently, swollen and hard. As the disease advances, the papules ulcerate at their apex, and give exit to a sanious ichor, which concretes into thin, friable, yellowish scabs; the skin becomes more and more inflamed, *thicker*, dry, and rugose, and pustules of acne or impetigo appear mixed with the papules of lichen, or on the surrounding skin. The first appearance of lichen agrius is often preceded by a sharp feverish attack, which ceases as soon as the eruption appears; but the affected part is throughout attended

with heat, intolerable itching, and occasionally severe tingling pain, all of which are much aggravated by any excitement of the circulation, even by the warmth of bed.

Lichen agrius occurs, in my experience, much more frequently in males than in females. The most usual causes by which it is excited are local irritants applied to the face. I have in some cases seen it produced by the pressure on the forehead of a tight hat, by harsh dry winds, and by solar heat or that arising from a very hot fire: the latter is a not unfrequent cause of the eruption in some trades, such as blacksmiths, furnace men, &c. Its diagnosis is generally very easy; being the only *papular* eruption peculiar to the face, it is not liable to be confounded with any of the other eruptions which appear there, but an obscurity sometimes arises from the development of pustules of acne or impetigo. A careful examination, however, with a pocket lens, will always show the primitive character of the papules; and the peculiar change in the skin on which they exist, as I have above described it, will aid the diagnosis.

The early stages of this eruption require the repeated application of leeches as near the seat of the disease as possible, the use of active purgatives, and the tepid fresh-water bath every second or third day. I have found the following ointment very successful in its commencement:—Acetate of zinc, two grains; cold cream[a], an ounce; chloroform, four minims: the alkaline soda wash being used at the same time. When the disease becomes chronic, the application of leeches, and the use of occasional saline purgatives, are still of service, but

[a] Cold cream not being officinal, medical men are sometimes puzzled how to designate it in their prescriptions; many, I know, use the barbarous Latin, *Cremor frigidus*. The term employed by the older pharmacologists for this preparation was Ceratum Galeni, and this is a convenient appellation if it were generally understood by compounders, but that it is not, I have had experience, for in more than one instance in which I prescribed it, *gall* ointment was dispensed.

the employment of iodine internally is now required. I generally prescribe it with the decoction of elm-bark, in the form I have mentioned when describing the treatment of acne; but in persons of a weakly habit of body, or in the debilitated, I have derived much benefit from the iodide of iron, given in the form of syrup or of pills. I have found iodide of sulphur the best local application in this stage of the disease, the form which I ordinarily prescribe, being twenty grains of the iodide to an ounce of white wax ointment, to which six minims of chloroform are added.

J. B., aged 46, a blacksmith, consulted me in March, 1849, for an eruption on his forehead. The entire skin of this part of the face was of a dark red colour, thickened, elevated, rugose, harsh, and covered with minute papulæ thickly set: small pustules being also scattered over the surface. In parts it was covered with yellowish scabs, which readily fell off, and permitted the escape of a thin sanious fluid. He stated that the eruption first appeared more than two years before, and he ascribed its origin to his being compelled frequently, when heated much from the fire, to go out into the open air; he thought also that he had taken cold at the same time from this cause, as he was obliged to remain in bed for two or three days just previously to the appearance of the eruption, in consequence of a feverish attack attended with sickness of stomach. Ever since its first appearance it had caused him great suffering from the heat and pain which exist in the part; and the itching has been at times so intolerable, that he has torn it repeatedly with his nails until it bled. He said that he had used various local applications, but they seemed only to aggravate the disease. I ordered six leeches to be applied at the margins of the affected surface, and the following ointment to be smeared over the eruption three times a day, the parts having been sponged well with the alkaline soda wash, without the glycerine, previously to each application:—iodide of sulphur, twenty grains; white wax ointment, an ounce;

chloroform, six minims. He was also directed to take two grains of the iodide of potassium three times a day, in a wine-glassful of decoction of elm-bark. This plan of treatment was continued for somewhat more than two months, when, as he was much improved, the dose of the iodide was gradually decreased, and in another month all the remedies were discontinued, there being nothing but a slight stain of the skin left, which has since worn away completely, and he is at present quite free from any mark of the disease.

Herpes.—Two varieties of this eruption appear on the face, herpes circinnatus and herpes labialis. The former, popularly known as the *ringworm*, is essentially a disease of youth, rarely appearing after the age of puberty. It is characterized by an eruption of minute vesicles on a slightly inflamed base, which appear in a circular form, with round patches of healthy skin in the centre. Its first appearance is sometimes attended with a slight feverish attack, accompanied by heat and tingling of the part of the skin about to be affected. The vesicles usually break about the third or fourth day, and dry up into a small scab or scale, which bears much resemblance to an exfoliation of the cuticle. In some instances the disease thus terminates in ten days or a fortnight; but in others it assumes a chronic character, spreading by the circumference, fresh vesicles springing up at the outer edge, while the exfoliation still continues from the part first affected, but the central patch of sound skin is rarely engaged. I have not unfrequently seen instances in which ringworm had thus lasted for many months, a single circle often covering the entire of one cheek: two or three other patches having also formed on other parts of the face. This form of herpes agrees, I think, in its essential characters, with the variety I have described in a previous essay in this Journal[a], under the name of Herpes capitis, any difference

[a] New Series, vol. vi. p. 33.

that exists between them being dependent on the peculiarities caused in the latter from its situation on the hairy scalp. I have seen numerous instances to convince me of its contagious nature, although this opinion is, I know, different from that of many of our best dermatologists. Some of these instances I have already published in this Journal[a].

The treatment of herpes circinnatus in its milder forms is very simple, a saline purgative being in general the only medicine that is required; should the local inflammation, however, be high, the application of the compound lead-wash, warmed, will be found of use. When it assumes the chronic character, the constitutional treatment I have laid down in my essay on eruptions of the scalp for the disease when it appears there, will be required. The local application from which I have derived most benefit is the *brown* citrine ointment[b], diluted with from three to four parts of white wax ointment, the alkaline wash with glycerine being employed at the same time. Whether the disease be acute or chronic, the face should be exposed to the air as little as possible, and specially guarded from the heat of the sun or of the fire.

Herpes labialis is an eruption of short duration, which appears at the angles of the mouth or on the lips; it is usually a concomitant of ordinary colds, appearing on their decline. By most writers it is described as being more or less connected with derangement of the stomach or digestive organs, but I must confess that I have never been able to see this connexion. It generally runs its course in four or five days, but, when irritated by picking or by the motion of the lips, it may last for double that time. If a strong spirituous lotion—and I have found nothing answer so well as Eau de Cologne—be constantly applied to the part on which it is about to appear, before the vesicles are developed, the further progress of the eruption may in most instances be prevented.

[a] New Series, vol. viii. p. 164. [b] See my work on Medicines, p. 400.

Eczema.—There are two forms of this eruption described as affecting the face, namely, eczema rubrum and eczema chronicum, both of them exceedingly obstinate in their nature, and attended with great suffering and annoyance to the patient. They are liable to appear at any time of life, from the earliest infancy to the most advanced old age; the former, however, is more often met with in young persons, and the latter in the middle periods of life, and in the old. As eczema chronicum, nevertheless, is in all cases, so far as my experience enables me to judge, but an advanced stage of eczema simplex or of eczema rubrum,—on the face always of the latter,—I shall describe both together.

The outbreak of the eruption is preceded in young persons by a sharp attack of fever, attended with burning heat and soreness of the part about to be affected, which lasts for two or three days: in adults these symptoms are very trifling. Numerous minute vesicles then appear, closely crowded together, on a highly inflamed patch of the cuticular surface, characterized by acute burning pain and intense itching. These vesicles do not maturate, but burst usually on the day or day but one after their first appearance, giving exit to an abundant irritating serous fluid, which dries into soft thin scales. In some few instances the disease does not proceed beyond this stage, the cuticle of the part affected gradually exfoliates, and recovery takes place; but more generally the inflammation of the surface goes on increasing, fresh crops of vesicles continuously appear, the discharge becomes more copious, and of a more acrid character, exciting irritation of those portions of the neighbouring healthy skin over which it may flow, and the itching and painful tingling are most intense, scarcely allowing the patient a moment's rest, night or day. The skin which is the seat of the eruption becomes swollen as the disease advances, the cuticle exfoliates with the soft scabs, or is torn off by scratching, and deep bright red cracks appear all over it, from which a sanious, often bloody discharge ex-

udes. The sufferings caused by eczema, when it reaches this stage, can scarcely be described; suffice it to say, that they totally incapacitate adults affected with the disease from following any trade or employment.

Whether eczema rubrum attacks young or old persons, when it assumes a chronic character I regard it as the most intractable of the eruptions which appear on the face. It not unfrequently lasts for years (in one case, regarding which I was lately consulted, it had been of upwards of twenty-five years' duration), and is rarely cured under several months' treatment.

The most usual part of the face on which it appears in infants and young children is the forehead, to which it ordinarily spreads from the scalp, and, unlike most of the other eruptive diseases, is much more obstinate there than on its primary situation. This I believe to depend on the greater delicacy of the skin of the face permitting those cracks and fissures, to which the rebellious nature of the disease seems to me to be chiefly due, to form more easily. In adults, it occurs with greater frequency on the nose and lips, but in many cases spreads also to the forehead and cheeks.

As regards the causation of eczema, I have but few remarks to offer; it may, undoubtedly, be excited by any of those causes which I have enumerated at the commencement of these observations, but I have very rarely been able to trace a distinct connexion between the appearance of the eruption and any of them. I have certainly seen the disease most frequently in persons who have been obliged, in their ordinary occupation, to sit in close rooms, with the head much stooped.

The diagnosis of eczema, in its chronic form, is generally attended with much difficulty. In its early stages the eruption is sufficiently characterized by its vesicular character. Herpes, the only other affection of the skin of the face with which, from being of the same class, it is likely to be confounded, occurs, as I have described when speaking of it, in circular patches,

or affects the mouth and lips alone; while acute eczema is irregularly spread, in the form of distinctly separated vesicles on a highly inflamed base, and is not confined to any special locality. When eczema becomes chronic, however, it is often very difficult to diagnose it from lichen: the chief points of difference are the papular, and therefore *raised* character of the latter, the attendant serous discharge being evidently caused by the local irritation to which its presence gives rise, and the absence of those *red cracks* in the skin which so invariably accompany eczema. Some importance must be attached to the diagnosis between the two affections, especially as regards the opinion to be given as to the probable duration of the disease, eczema being much more intractable than lichen.

In young persons, the early stages of this eruption require to be treated on strictly antiphlogistic principles. I have generally succeeded in preventing the disease from becoming chronic by following out the plan of treatment proposed in my paper on diseases of the scalp, already so frequently referred to; but where the children are of a full habit of body, or the inflammation runs high, the application of leeches to the temples, or behind the ears should not be neglected. When the eruption becomes at all chronic, in addition to the constitutional treatment by the iodide of mercury and hydrargyrum cum cretâ as there proposed, I have derived much benefit from the local employment of an ointment containing tannin and glycerine, in the proportions of ten grains of the former and half a drachm of the latter, to an ounce of white wax ointment, to which four minims of chloroform have been added;—alkaline lotions being at the same time used. In adults, the inflammatory nature of the disease is more apparent than real even from its first appearance, a fact which is sufficiently proved by its occurrence most frequently in persons of a broken-down habit of body, or in those who have been much debilitated from any cause. A more stimulant plan of treatment as regards local applications, and the internal administration of tonic alteratives,

are consequently required with them, from the commencement of the eruption. The iodide of sulphur is the local remedy which I have seen most productive of good, applied in the form of an ointment, containing from ten to twelve grains to the ounce of white wax ointment, to which from eight to fifteen drops of chloroform have been added. I may here mention that I have used chloroform very extensively for the last year and a half in the treatment of skin diseases, and that I have found it of especial service in all eruptions which are attended with much itching, provided they are not accompanied by acute inflammation of the part affected. The internal remedy that I have prescribed with most effect in the treatment of chronic eczema rubrum is the ioduretted iodide of potassium and arsenic, in a form slightly modified from that I first proposed in my Essay on Scaly Diseases of the Skin in this Journal[a], as I have mentioned, in the third edition of my work on Medicines[b]. The alkaline lotion with glycerine, and the substitution of the carbonate of soda for soap, I recommend in all cases.

P. B., aged 32, a law clerk, consulted me on the 21st of January, 1850, for an affection of his nose and lips. Between six and seven years ago, he says, the eruption first appeared on his nose, in the form of small watery pimples, which were attended with much tingling and burning pain; these soon dried up and disappeared, but were in a short time followed by a fresh crop, which were more painful and itching, lasted for a longer time, and discharged a great quantity of a watery fluid. The disease in a short time extended to the lips, and appeared also about a year since on the calves of his legs, and on the backs of his hands and wrists. His sufferings he describes as being most intense from the pain and itching, especially at night when he gets warm in bed, almost completely depriving him of rest, and preventing him from sitting for more than a few moments in a room with a fire in it. Exposure to dry, harsh

[a] New Series, vol. viii. p. 351. [b] Page 428.

winds, and to the heat of the sun, also, equally aggravated the disease. His general bodily health has within the last year been much deteriorated: his chief symptoms being debility and loss of appetite. The disease now extends to the greater part of his face; the lips are much swollen, protruding, fissured with deep chaps from which an acrid serosity constantly exudes, and bleed on the slightest irritation; the nose is covered with thin, friable, yellowish-brown scabs, between which are bright red cracks, that give exit to a discharge of a similar character to that from the lips; and the forehead, especially between the eyebrows, presents the same appearance. The disease is also present in a most aggravated form on his wrists, the backs of his hands, and the calves of his legs.

He was ordered at first to take a fresh-water tepid bath twice a week, and to live most abstemiously, as regarded both eating and drinking; his diet to consist chiefly of milk and farinaceous food, with a small quantity of the plainest fresh meat. The only local application ordered was a weak carbonate of soda wash, twenty grains to the pint of rain-water; and a tonic antacid mixture, containing quassia, cascarilla, and Brandish's alkaline solution, was prescribed for him. He was also directed to expose the face as little as possible, and to substitute soda for soap when washing. This plan of treatment was continued until the beginning of April, with excellent effect as regarded his general health, but with scarcely any perceptible influence on the eruption. He was at this time ordered an ointment containing twenty grains of the iodide of lead, an ounce of cerate, and four minims of oil of bitter almonds; and to take two grains of iodide of potassium three times a day, in two ounces of decoction of fresh elm-bark. The baths were still continued, and the same directions as to diet enforced. These remedies were persisted in until the 31st of August, at which time the eruption on the face was but little, if at all improved, and it was decidedly worse on the extremities. I now prescribed for him a mixture containing eighty

minims of arsenical solution, sixteen grains of iodide of potassium, and four grains of iodine, in two fluid ounces of syrup, of which he was to take a tea-spoonful three times a day in two ounces of decoction of elm-bark; and the following ointment: iodide of sulphur, twelve grains, simple cerate, an ounce, and oil of bitter almonds, four minims. On the 24th of September he was much improved, but he thought the ointment smarted him. The iodide of sulphur was therefore reduced to ten grains; white wax ointment substituted for the cerate; and fifteen minims of chloroform for the oil of bitter almonds. From this time he improved rapidly, the itching and pain were almost at once subdued, and in the beginning of December the face was quite well; up to the middle of last March he continued free from any annoyance, and there was scarcely a stain of the disease apparent; but towards the end of that month there was a slight return of the eruption, after exposure to the harsh winds which then prevailed. This very frequently occurs with most eruptions of the face in the spring or autumn after they have been cured, but such relapses are invariably very amenable to treatment.

Our patients should, in all cases, be warned of their liability to the recurrence of eruptive diseases, no matter on what part of the cutaneous surface they may have been present, and of the necessity, under such circumstances, of an *immediate* recourse to remedial measures. Such liability is also an indication to the practitioner that the constitutional treatment should be continued for some time after the disappearance of the affection.

The other eruptions of the face which I have enumerated in the commencement of this paper, I shall describe in a future number of this Journal.

ART. XII.—*An Account of three fatal Cases in which an accidental Injury to the Brain was undetected during Life.*

[THE following cases are especially interesting as an illustration of the slight evidence which a rapidly fatal injury to the brain may present until a short time before death. In all three there was no idea in the first instance of injury to the organ; and the cause of death was unsuspected until revealed on *post mortem* examination. Their history, too, offers a practical commentary on the necessity of the most careful examination in every case in which, from the position of a wound, or the nature of the instrument with which it may have been inflicted, the brain might possibly be penetrated: we have, therefore, thought that their connected publication would prove a valuable contribution to surgical literature.—ED.]

CASE I.—By GEORGE ANDERSON, M.D., Surgeon 12th Royal Lancers:

Trumpeter Henry Grainger, aged thirty years, was admitted into hospital on 27th February, 1851; he was seen at the morning visit, at 10 o'clock, by the assistant surgeon, Dr. George, who found him in bed, and considered that his ideas were somewhat confused, but attributed this, in part, to indulgence in drink the previous night (the 26th), as, on questioning the patient as to what was the matter with him, he said that on the previous evening he had been fencing with a walking cane with some of his companions, and that he had received a blow on the nose, or a thrust from a cane in the face. On examination, a small punctured wound was observed on the left ala of the nose, which did not appear larger than the wound arising from a leech-bite; and at this time, though somewhat taciturn, he appeared perfectly sensible, and answered readily the questions put to him.

Fomentations to the wounded part, and aperient medicines, were the remedies prescribed, and no unfavourable symptoms supervened during that day.

At the morning visit on the 28th, he was considered as not better, nor as sensibly worse, though there was no doubt that he was at this time labouring under a considerable degree of stupor; yet no alarming head symptoms were manifest, and, consequently, no particular examination of the parts where the wound existed was made, and the only additional remedy prescribed was a cold lead lotion to the head and face, and the purgative medicine was repeated.

About 6 o'clock on the same evening I was called by the hospital sergeant, who stated to me that Grainger was much worse; and though Dr. George informed me, at muster parade in the forenoon, that he could not account for the continued symptoms of drowsiness and stupor in his case, I certainly did not suspect, either *before* or *after* seeing the patient, that there had been any wound of the brain, much less that a foreign body had penetrated to that organ, and was firmly impacted in the patient's skull. When I first saw him this afternoon he was struggling violently with the attendants, who required to use force to keep him in bed; his breathing was stertorous, and he was puffing with the lips; the right eye was fully expanded or staring, and its pupil greatly contracted; ptosis of the left eye-lid existed, and on raising the eyelid the pupil was found to be extremely dilated. He had passed a large quantity of urine in bed, and his bowels had been open since morning.

On questioning him, or rather calling him sharply by name, he would raise himself into the sitting posture, throw his arms about, and strike at, or take firm hold of any object within his reach.

I had considerable doubt and difficulty in determining on the immediate measures to be adopted, the history of the case being to me quite obscure, and the symptoms being urgent and most unfavourable. Though the pulse was not full or bounding, the action of the temporal arteries was exaggerated, and, therefore, looking only to present symptoms, I opened the right temporal

artery, and though this was done effectually, I only obtained about a couple of ounces of blood from it. I then opened a vein in the arm, but did not obtain much more blood in this way. A large turpentine enema was then administered, and grain doses of calomel were ordered every hour or half-hour. I left the hospital with very slender hopes that a fatal issue could be averted, and I had not been much more than half an hour in my room when I was called to the hospital, but before I reached it the patient had expired, after a violent convulsion attended with great discolouration of the countenance. The fatal event occurred at about a quarter past 8 o'clock on the evening of the 28th of February, 1851; and the features of the deceased appeared calm, and not distorted, when I saw the body.

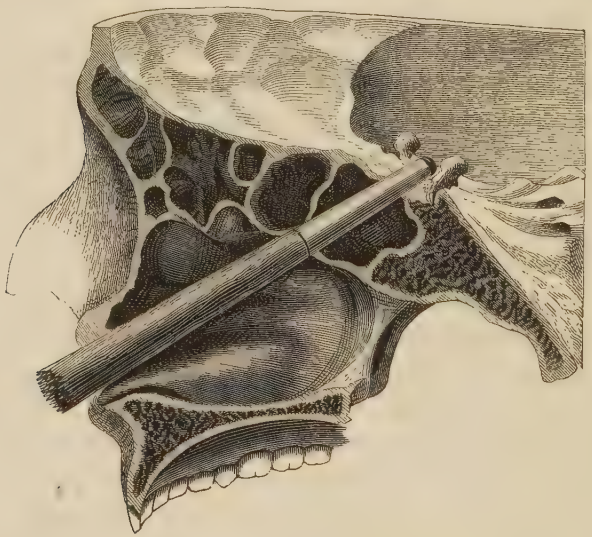
The autopsy took place sixty-three hours after death, on Monday, 3rd March. On removing the calvarium the dura mater presented nothing abnormal, but when it was removed a considerable degree of chronic arachnitis was presented, and the pia mater was found to be very vascular. After dividing the falx cerebri the anterior lobes were raised, and, gradually proceeding backwards, we had got as far as the division of the optic nerves, when the scalpel struck suddenly on a metallic point or substance directed obliquely upwards and backwards, and protruding into the cavity of the skull, close to the left side of the sella turcica of the sphenoid bone, and pressing or lying on the left optic nerve, or left side of the optic commissure.

The cause of the man's death was at once made manifest to myself and Drs. Carte and George, who were present at the examination, as the foreign body was evidently the brass point or ferule of a small walking-cane.

I did not proceed further in the examination, but reported the circumstances to the commanding officer, when a coroner's inquest was ordered to be held on the body.

In the course of the afternoon the coroner held the inquest, and Surgeon Porter, Jun., was the medical man ordered

by him to investigate into the cause of the soldier's death. I was present when Mr. Porter proceeded with the further examination of the brain, and the parts in connexion with the foreign body. On probing the nostril the end of a foreign body could be detected, and before it was removed by Mr. Porter from the situation it occupied in the skull, it was evident to all present at the examination that it was the broken end of a cane, of which the ferule or brass point presented itself in the inside of the skull, by the side of the posterior clinoid process of the sphenoid bone.



Dr. Carte afterwards made a section of the skull, by which the course of the stick, as is shown in the above wood-cut, was exhibited. The point of it had pierced the left ala of the nose, at the junction of the cartilage with the bone, taking a direction upwards, backwards, and a little inwards; in its course it grazed the inferior and middle turbinated bones, passed through the great cell in the body of the sphenoid, breaking off and carrying before it the posterior clinoid process, and finally impinging upon, but not rupturing the membranes covering

that portion of the anterior lobe of the brain in immediate relation to the optic nerve of the left side. Anatomically speaking, there was nothing to oppose the onward progress of the stick, for in fact it passed up the nostril, the only resisting part, after it entered the skin and cartilage, being the body of the sphenoid itself, which, in the present instance, was very slight, its walls affording almost no resistance, in consequence of their extreme thinness.

It is evident that, while fencing as he had described, the cane had accidentally struck the unfortunate man's face, probably from his own act in parrying the thrust, and that the point of it had entered through the left ala of the nose, passing obliquely upwards and backwards, until it emerged, as described above, by the side of the sella turcica. I should think that the cane had broken off *short* in the nose when it was being withdrawn by his assailant.

Mr. Porter appeared to be of opinion that the brain presented an inflamed appearance, but this may have been more apparent than real, and may in part be attributed to *post mortem* effects and exposure to the atmosphere, which latter had caused the blood in the vessels to assume a more vermillion appearance than it presented on the morning of the examination.

There can be little doubt if a detailed and accurate account of this unfortunate fencing match had been obtained at the time of the patient's admission into hospital, and the stick which inflicted the injury had been produced (which was done after the man's death, and shown to me), that the attention of the medical officer would have been directed to what he, without any further information than the patient's negative statement, considered only as a trivial puncture in the ala of the nose, and would have, undoubtedly, led him to ascertain that there was a foreign body impacted within the nostril, and, probably, passing backward so as to touch the brain.

I am inclined, however, to the opinion, that had all the above information been obtained at the time of the unfortunate

soldier's admission into hospital, the foreign body might not have been extracted from the situation it occupied in the man's skull, as it required considerable force to drive it with a punch and hammer, from within outwards, in the dead body; and if it had been extracted, the question arises, what chance was there of a fatal termination being averted.

Case II.—By Sir Philip Crampton, Bart., F. R. S., &c.

[When we were favoured by Dr. Anderson with the history of the foregoing case immediatelyafter its occurrence, we wrote to Sir Philip Crampton to request the particulars of a somewhat similar one which we were aware had occurred in his practice many years ago, and, in reply, received from him the following letter, in which they are contained.—Ed.]

"*Merrion-square, March* 27, 1851.

"My dear Sir,—I have but very short notes of the case of wound of the brain to which you allude, but, such as they are, they are quite at your service.

"In the winter of 1814 a gentleman of the name of M'Loughlin, a lieutenant in a Highland regiment, when running on a dark night to escape from a shower of rain, came rather violently in contact with an irritable old man, who made a thrust at him with an umbrella, the point of which struck him immediately beneath the left eye-brow. The rencontre took place on Essex-bridge; but the wound was attended with so little local pain or shock to the system, that Mr. M'Loughlin walked to my house in Dawson-street (a distance of at least half a mile), and having mentioned the occurrence, as one to which, however, he attached no importance, he begged of me to look at the wound on the eye-lid, which still continued to bleed slightly.

"I found a wound of about three-fourths of an inch in length in the upper eye-lid, exactly in the seat of the deep fold which is formed in this part by the action of opening the eye and looking upwards. When the eye-ball was turned upwards there was no appearance of wound, but when the eye-lid was drawn downwards the wound gaped and showed the

conjunctiva, which still completely covered the upper portion of the ball of the eye. The vision was quite unimpaired. The wound having been united by two points of suture, Mr. M'Loughlin took his leave, and walked to his lodgings in Grafton-street. I called on him on the following morning and found him at breakfast; he made no complaint but of some stiffness in the eye-lid. On the next morning at 7 o'clock, A. M., I was called to him in a hurry, and found him in strong convulsions, so strong that it was with difficulty two persons were able to keep him from working himself out of the bed. The convulsions continued with short intervals of coma until 8 or 9 o'clock in the evening, when he expired.

The *post mortem* examination was made at 10 o'clock on the following morning, by the desire of the coroner.

It was found that the brass ferule of the umbrella, nearly two inches in length, had penetrated through the orbital plate of the frontal bone, and was lodged in the substance of the left hemisphere of the brain; it was imbedded in a thin coagulum of blood, which extended into the left lateral ventricle; both ventricles contained a small quantity of bloody serosity. A portion of the os frontis, containing the perforated orbital plate, was deposited in the Museum of the College of Surgeons.

"Very truly your's,

"PHILIP CRAMPTON.

"*To the Editor of the Dublin Quarterly Journal of Medical Science.*"

CASE III.—By JOSHUA PAYNTER, Esq., Surgeon of the 13th Light Dragoons.

[The account of this case, which, though not as complete in the details as the two previously related, is yet equally illustrative, has been procured for us through the kindness of Dr. Gibson, Surgeon of the 17th Lancers[a].]

[a] The particulars were given in a letter from Mr. Paynter to Mr. Tuffnell, Surgeon to the City of Dublin Hospital.

"The following case occurred in a soldier of the 77th regiment, in 1842, when I was assistant-surgeon in the Rifle Brigade; and by the desire of Dr. Burrell, then surgeon of the 77th, I made the examination after death.

"The soldier was drunk and put in the guard-room, and the following morning was sent to hospital with some slight complaint, either headach or some other complaint not particularly urgent. I think he was in hospital one or two days; and, if I mistake not, after having taken a dose of aperient medicine, was walking about, when, on a sudden, he was attacked with symptoms resembling apoplexy, and died in a few minutes.

"*Post Mortem Examination.*—I must previously state, that there was no external appearance to indicate any injury having taken place. There was nothing abnormal perceived until the dura-mater was removed, when, on raising up the brain, a collection of puriform matter was found in the left anterior lobe, at its inferior surface, where it rests on the left orbital plate of the frontal bone, and in it a piece of a tobacco-pipe, about two inches in length, was seen penetrating the substance of the brain. The piece of clay pipe was supported by the left eye-ball, having also as a support a circular hole in the left orbital plate; on further examination externally a much ecchymosed spot was found in the upper eye-lid, which proved to be a wound made by the piece of pipe, which had entered the orbit, passed through the orbital plate of the frontal bone, and thus caused death.

"The inference drawn, of course, was, that the man going home drunk with a pipe in his hand, must have fallen, and in the act thrust the tobacco pipe into the orbit and fractured the orbital plate as before stated. No wound was apparent, nor do I think any external appearance of black eye, as the upper lid being drawn up by the levator palpebræ hid the opening from being seen."

PART II.

REVIEWS AND BIBLIOGRAPHICAL NOTICES.

The Nature and Cure of Consumption, Indigestion, Scrofula, and Nervous Affections. By G. Calvert Holland, M.D., lately Physician to the Sheffield General Infirmary. London: Orr & Co. 1850. 8vo. pp. 208.

Cases illustrative of the Cure of Consumption and Indigestion. By G. Calvert Holland, M.D., &c. London: Orr & Co. 1850. 16mo. pp. 104.

Practical Suggestions for the Prevention of Consumption. By G. Calvert Holland, M.D., &c. London: Orr & Co. 1850. 8vo. pp. 143.

It affords us no satisfaction to bring these books under the notice of our readers. Had we consulted our private tastes or the interest and reputation of British medicine, we should have given them only the condemnation of obscurity; but the author possesses external claims to our notice, of such a character that we feel unable to pass them by wholly without remark, particularly as these same claims are liable to influence the unwary to buy them, and the inexperienced to be misled by their statements: for Dr. Holland is a regularly educated physician, has held the appointment of physician to a large provincial hospital in England, and at an earlier part of his medical career wrote books of some merit. Heu, quantum mutatus! Dr. Holland still writes books, nearly as frequently as Jullien composes a quadrille, or James a novel; but their merit, like his new medical system, has gradually dwindled lower and lower, until it has at last become an infinitesimal quantity. It gives us a real regret, and no satisfaction, we repeat, to bring forward, only to censure, these treatises. We have met with the author in a nobler field than that of open empiricism; we thought his sound medical

education, and the possession of the honourable distinction of an Edinburgh degree, and of an important public appointment, would have saved him from this recklessly eccentric course, and have preserved medical science from those ever-ready sneers he has now provoked. And, we confess to it, that we required full proof of the backsliding ere we condemned. It was not until the evidence was showered upon us with a characteristic profusion, nor until, in the "Cases of the Cure of Consumption and Indigestion," the proofs of defection became overwhelming in force, that we fairly gave up the author as lost to medicine, lost to reason. Even then in no rejoicing mood did we come to our conclusion. Rather, in spite of Dr. Holland's contrary conceptions of his critics, we were induced to exclaim, with Othello,

"But yet the *pity* of it, Iago:—O Iago, the *pity* of it, Iago!"

Dr. Holland's medical doctrines are those of exclusive solidism. This is sufficient for their condemnation. In the present advanced state of medical science, we shall spare ourselves the trouble of proving to our readers that there are diseases which do *not* own the nerves as their cause; that all the functions of the animal system are *not* performed by and through the nerves. It would be as profitable, and much more pleasant, to prove that Gulliver did *not* really travel out of Swift's brain. All we have to do with this matter is to give in evidence that these are really the author's views. One quotation will suffice. In the preface to the first of the three treatises at the head of this article we find the following:—"He [the author] has endeavoured to prove, in opposition to the doctrines of physiologists, that all the phenomena of life, occurring either in health or disease, originate in the widely pervading influence of nervous matter; or, in other words, that every vital manifestation, whether in connexion with digestion, circulation, absorption, nutrition, or secretion, is to be traced to the unceasing agency of the nerves. They enable every organ to exercise the office for which it is peculiarly fitted by its structure; they alone impart to all tissues the principle in virtue of which these perform their part in the mysterious scheme of the animal economy." This is, as Dr. Holland remarks, in opposition to the doctrines of physiologists. So complacently does our author, here and in other places, remark upon the disagreement between his own doctrines and those of physiologists, that we verily believe he has a pleasant little hypothesis nestled within his bosom,—that they are therefore true! But our author's doctrines are the same in their actual basis with those of the

times of Hoffman and Cullen, broached and only maintained during the infancy of physiological and pathological inquiry. We are unprepared to ignore the researches of Andral and Gavarret, Becquerel and Rodier, Prout and Liebig, Simon and Mulder; we are unprepared to bow down to Dr. Holland's idol. "There is but one system, the nervous; and I, Dr. Holland, am its prophet," will scarcely compel us to forget the first letters of medicine.

The difficulty is to see how the author stumbled upon this fancy. Here again we must let him speak for himself. He informs us "that he has for many years devoted his attention, *almost exclusively*, to the investigation of the functions of the nervous system, and some of the results of his researches have been given to the world in two separate treatises." This explanation suffices us. We thought it a singular phenomenon that a person of ordinary understanding should run into such blunders as Dr. Holland; but when we find that, not content with having paid almost exclusive attention to one class of functions, he stereotyped his convictions and sealed his errors by writing "two separate treatises," containing the results of his so-called researches, the difficulty becomes plain. To commit an error, and write a book in its defence, is a combination that seals all argument.

Not to dwell longer upon the unfruitful subject of shallow hypothesis, and ill-connected and worse observed facts in illustration thereof, such as we find in the larger Treatise upon Consumption, Scrofula, &c., we shall now very shortly draw attention to the small, but by no means unpretending book which stands second upon the list. Were we dealing with a respectable physician, content to practise the rules and general modes of conduct of legitimate medicine, we should feel ourselves called upon to ask, Why does the book exist at all? Why, as is most meet, are not the cases incorporated with the doctrinal treatise, in proof of the author's arguments? Why entitled "Cases of the *Cure* of Consumption and Indigestion"?—as if the cure of the former disease were an every-day matter with Dr. Holland, and as if it were admissible, *quoad* curability, into the same category with the latter disease. But these are the easily recognised tricks of the professed quack; we pass them by. Conscious that his usual productions are "verba," and verba only, he has in this instance chosen the unostentatious motto, "res non verba." Dr. Holland should have left the "res" alone. As long as he dealt in mere argument, however ill-founded, hypotheses of the nervous functions, however contrary to known facts, the author might have escaped contempt.

Great men have been unsuccessful in this kind of manufacture. We might have deplored that he had not given his attention more fully to the observation of disease, but we should have only gently hinted at his possession of a perhaps "too discursive intellect," strong powers of imagination, and so-forth; but in this small volume he has given us cases, given us the means of gauging his knowledge of diagnosis, shown us what evidence he thinks valid to prove certain therapeutical effects; finally, he has enabled us to demonstrate that he is determined, like his brethren in quackery, to inflict every possible injury upon the body he has so recently deserted.

The preface to this most precious production opens thus: "In the relation of the following cases I have departed, in some degree, from the practice usually adopted by medical writers. I have frequently entered into a minute description of the symptoms, the general character of the constitution, and the probable causes of its derangement, whether exciting or predisposing, and have endeavoured to explain the physiological action of the remedies." What does Dr. Holland imagine medical authors write about? The north-west passage?—The overland route? We were innocent enough to think that the consideration of the symptoms of disease, the constitution of the patient, the causes exciting or predisposing, and the action of remedies, constituted almost the whole of the science and art of medicine! We must admit that its professors are by no means always, or often, perfect observers of disease, still less often sound reasoners upon what may have been even well observed, but we never doubted what they observed, upon what they reasoned; the object in view appeared clear enough in all cases. What then does Dr. Holland mean? This, and this only, that, as it happens to be the worst thing that can be said of the professors of an art, that they are ignorant of the objects of that art, he could write nothing that suited his own situation better than the observation we have quoted. We do not believe that the works of Culverwell and Morrison contain any one passage exhibiting an equally unabashed assurance, an equally unmitigated falsehood. It is almost impossible to conceive any man of common understanding or common honesty prefacing a book with the remark, that medical men do not study or write about medicine!

The first case illustrative of the cure and treatment of phthisis is a young lady (most of Dr. Holland's book-patients are young *ladies*) sixteen years of age. She had menstruated at 14, but only twice afterwards; respiration frequent, and much hurried on exertion; she had been troubled with a cough

for about two years, but which generally left her *during the summer months,* accompanied with *scarcely any expectoration;* the respiratory murmur was feeble, but heard throughout the chest; bowels torpid; appetite impaired. Two members of the family (how related not stated) had died of consumption. Dr. Holland has told us of the imperfections of the investigations conducted by physicians; here he gives us a case to show how he proceeds to form a judgment. We wish a little more aid from him: we do not perceive a symptom or a sign of phthisis! An occasional cough, without expectoration, no hemoptysis, or pains in the side, respiratory murmur feeble, but heard throughout the chest (clever Dr. Holland!), in a non-menstruating girl of 16, signify phthisis! But our author is not without a loophole. He tells us pleasantly in the preface, which only the critics read, that "several of the cases are not *strictly* those of consumption nor of indigestion," which this worthy logician thinks "no well-grounded objection to the propriety of their introduction" in a book emblazoned, "Cases of the Cure of Consumption and Indigestion." In this instance, at least, Dr. Holland's cunning has failed him; the word "consumption" too often occurs to leave any doubt as to his opinion; in fact, the whole case is a little treatise on phthisis. We shall leave our readers to form their own opinion of the diagnosis; we pass on to the pathology. We are told that such cases proceed from "internal congestion of the lungs and abdominal viscera;" the blood leaves the extremities and surface of the body, and accumulates in the viscera by an inevitable effect. Every step in the march of phthisis is a morbid process, which attracts to *itself* an undue proportion of it (the blood), at the expense of every part of the animal system. (p. 19.) What a subtle spirit this phthisis must be,— a kind of morbid Archæus, which disposes the body as "itself" wills! It would be very interesting to know whether and how it causes the diminution of the blood-corpuscles, and other blood-changes which have been incontinently supposed to produce "itself." It would be equally desirable to know Dr. Holland's opinion as to the precise connexion of this wonderful visceral congestion, which he so easily *brushes* off with a little spinal friction, with these old phrases, "lesion of nutrition" and "lesion of secretion." This is a knot which none but himself could presume to untie. The local, as well as the general congestion[a], we are told, will gradually increase at the expense of the superficial circulation.

[a] What does Dr. Holland mean by this? Has he discovered new vessels in which a "general congestion" can occur while the *superficial circulation* is diminished.

Dr. Holland must have seen a tubercular lung; has he ever seen one injected? We strongly recommend him to inject a healthy and a tubercular lung, because we think it probable that the result of the experiment would induce him to buy up the remaining copies of his book. He would find, what would be only extraordinary to himself, that in proportion to the amount of tubercular deposit would be his difficulty in injecting it; and that therefore his proposition must be only reversed to be an exposition of facts, namely, that *pari passu* with the progress of tubercular deposit is the diminution of the afflux of blood to the organ. Verily, a most clear and enlightened pathologist!

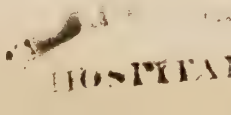
The treatment consisted in frictions, especially along the spine and over the abdomen and chest, by means of the flesh-brush, the use of the dumb bells, and cod-liver oil. These are approved remedies; Dr. Holland has shown discrimination in adopting the treatment suggested and practised by abler men. We only regret that they should have found so injudicious an advocate, whose wholesale recommendations are likely to prejudice thinking persons against their use. It is impossible to read the observations upon the case before us without seeing that the author reposes much greater confidence upon mechanical means to enlarge the thorax than they are justly entitled to; and though aware "that the capacity of the thorax gradually becomes contracted by the progress of serious disorganization of the lungs," he talks of means to arrest the progress of this contraction, and to enlarge the cavity of the chest, as unquestionably among the most important remedial measures to be employed under the *circumstances specified.* This is clearly a great error, and likely to produce the worst results. The author has greatly mistaken both the powers and the profitableness of these agents; and, taken in connexion with the context, the remark, "that it is as much in our power to enlarge the capacity of the chest, and *consequently* to invigorate the functions of the pulmonary organs, as it is to develope and strengthen the muscles of any part of the body by exercise," is simply absurd, and contains its own contradiction.

Case II. is a boy, fourteen years of age, of strumous habit and emaciated. His chief symptoms were distressing cough, accompanied with very little expectoration. The mucous membrane of the eyes and nose was occasionally much inflamed, and discharged matter. The abdomen is stated to have been tumid, and the bowels constipated. The physical signs are thus given:—"Respiration was heard throughout the lungs, but somewhat imperfectly at the upper part of each lung." What

imperfection was noticed by Dr. Holland? Was the respiratory murmur feeble, prolonged, coarse, interrupted, or bronchial? Was there dull stroke-sound? Did Dr. Holland discover any rhonchi or any alteration of the voice? Here, too, no hemoptysis, no night sweats, no hereditary predisposition, are noted. Do the records of medicine contain a case of phthisis whose diagnosis rested upon "*somewhat* imperfect respiration of the upper part of *each* lung"? Two ounces of tar-water were recommended to be taken twice a day, and the spine was rubbed every night with a stimulating liniment. In less than a fortnight the cough had entirely disappeared, and with it the phthisis!

Case III. is a corpulent woman, thirty-six years of age, who was suddenly (*sic!*) attacked with the formidable symptoms of consumption. The cough was at first dry, but in the course of ten days the expectoration of yellow, purulent-looking matter was extremely copious. The quantity exceeded a pint in the twelve hours. Night sweats excessive; no pain in the chest, or in any part of the body. "The respiration was heard throughout the lungs, but feebly at the upper portion of each, and in this region a *somewhat* dull sound was emitted on percussion." The chest was remarkably well formed. The diagnosis in this case is but little better founded than in that preceding. "A dull sound" looks formidable, but we are told that it was only *somewhat* dull,—a remark which always impresses us as meaning *somewhat* like nothing,—and dull on the corresponding superior regions of the chest, in which case the dulness would have escaped observation, had it been very slight, and, in any case, would have been attended with phenomena not mentioned by the author. Our observations upon Case II. are equally valid in Case III. No phthisis is made out. The nature of the case is quite obvious; a general bronchitis, with profuse secretion, taking place in a corpulent woman of "phlegmatic temperament," enfeebled by a recent confinement. The treatment consisted in the administration of tar-water, iodine, and bacon, under which combination the health of this corpulent baker's wife "was thoroughly re-established in less than two months!"

Case IV. is a married lady, whose history is drawn up with the author's usual carelessness, but which we have not space to insert. The physical signs were as follows:—"The respiration was slightly cavernous under the right clavicle, and pectoriloquy was evident in this region. The respiration was feeble over two-thirds of the right lung. It was heard distinctly over the whole of the left, but was a little louder than



natural." We have here, undoubtedly, the skeleton of a diagnosis, but with no rhonchi observable, no falling in of the thoracic wall, no alteration of vocal vibration, no increased conduction of heart sounds; above all, no dulness on percussion! The author's actual ignorance of the entire subject of physical diagnosis is, to our minds, more clearly exhibited in this than in any other of the cases. Had two such signs as pectoriloquy and slight cavernous breathing really existed, some other signs must have been present, and, were the author acquainted with their significance, must have been noted. Considering the absence of these signs, and that the pectoriloquy was discovered in a thin woman, under the *right* clavicle, we think the observation utterly valueless. She was treated for about three months with tar-water, iodine, and cod-liver oil, when she considered herself sufficiently well to lay aside all medicine; and the author states that the pectoriloquy was *still* slightly evident in the infra-scapular region, where it was not previously stated to have existed! So much for the fourth case of phthisis.

The fifth case is a young lady, twenty-one years of age, who had suffered from imperfect and irregular menstruation, and enlarged cervical glands, for some years. She was advised by a medical friend to marry, as being the likeliest means to cure. "Though obviously diseased, this was a matter of no difficult accomplishment. An only child and a large fortune will command suitors. Previous, however, to the consummation (!) of the marriage she was supposed to have taken cold, and suffered for some time from an irritating cough, which for several weeks was regarded as nervous. Menstruation had ceased previous to the occurrence of this symptom"! The physical signs upon which Dr. Holland founded his diagnosis, were:—"The respiratory murmur was scarcely in the slightest degree detected in the upper third of the left lung, and it was almost equally faint in the corresponding part of the right, but not over the same extent of surface; bronchophony was distinct in both lungs, but more strikingly in the left; in other portions of the pulmonary tissue the respiratory murmur was audible, but in many points did not present its ordinary vesicular character." The absence of the signs which usually accompany those given by the author throws, in this case, a suspicion upon the accuracy of the observer, which nothing connected with its general history tends to remove. If bronchophony existed, surely dulness and bronchial respiration must have existed; but neither these nor rhonchi are noted. Tar-water, cod-liver oil, assiduous frictions, iodine, bacon, formed the treatment. Five months from the commencement

of the treatment she had no cough nor difficulty of breathing; and now we have the following, as evidence of the state of the lung. The respiratory murmur was heard throughout the left lung, but only feebly, immediately under the left clavicle, but over a greatly diminished extent of surface; and in this situation only was there any dulness on percussion. An all-important sign, dulness on percussion, at the conclusion of a cured case is, for the first time, noted, and the change or improvement in the only important one mentioned at its commencement, passed over without notice. Yet this man talks of having been a pupil of that distinguished pathologist, Laennec!

In Case VI. we have another young lady, eighteen years of age. Any history that can be made to bear upon phthisis is absolutely wanting, excepting that there was consumption in her family. The respiration, we are told, was heard in both lungs, but imperfectly under the left clavicle, and was somewhat feeble throughout the left lung. There was no dulness on percussion in any part of the lungs. The chest, anteriorly, was exceedingly flat, and the mammæ were very little developed. Her impression was that the chest had been more prominent than at present. All this appeared to our author to exhibit clearly the necessity for the use of the dumb bells, and the case shows the truth of our previous observations, that he must be very injudicious in advising them; for, in forgetfulness of his own theories, he observes, that the first and all-important object in such cases is to give *more space to the action of the lungs* (the italics are the author's), or, in other words, to increase the capacity of the chest. Cod-liver oil and frictions were also used. Two months after first seeing this patient the author had the pleasure to observe her obvious improvement in the form of the chest. "There was by no means the same degree of flatness anteriorly as when she first came under my care. She became, in all respects, perfectly well." (p. 40.) Dr. Holland omits to state how the respiration was going on, but, in truth, our readers must not overlook the important fact, that our author uses these as mere counters to make a pleasant jingle, but meaning nothing. We should not be surprised if he keeps a stock of ready-made diagnostics, with a due admixture of feeble respirations and formidable pectoriloquies, which he adjusts to his imaginary young ladies of the interesting age of 18. The Doctor has some reason on his side. Even the public are astute enough to know that the diagnosis of thoracic diseases mainly rests on a rigid physical examination, and of phthisis more than of any other. As he is ignorant of the nature and import of the signs revealed by this method of exami-

nation, and as he has undertaken the special vocation of enlightening the physiologists and physicians of London upon diseases which necessarily involve the consideration of these signs, he has thought it discreet to bring them in, once at least, in every case. Two questions only occur to us to put to Dr. Holland. In almost every case the diagnosis commences with the observation, that the respiration was heard throughout the lung or lungs. Does he imagine that the respiration being heard throughout the lungs is a very extraordinary phenomenon? Does he believe *absence* of respiration to be a sign of phthisis?

Case VII. is a young lady aged 17, whose flesh was soft and flabby, and had "a somewhat diaphanous aspect!" What a charming creature! How could Dr. Holland submit her to the savage flesh-brush for a quarter of an hour night and morning,—tar-water, iodine, wet sheets, salt and water, and spinal liniments? The physical signs offer a fair warranty for the diagnosis, but the author falls into the vulgar error, that the pulmonary disease was, in all probability, to be ascribed to the cessation of menstruation.

The diagnosis of Case VIII. is only a shade less satisfactory than the first noticed. Case IX. is quite a hit of the author's; everything is *secundum artem.* Signs in due order of importance; cod-liver oil, and so-forth; treatment very satisfactory; but the author cannot escape from his bugbear, for he states, at the end of the case, after informing us of the patient's recovery, that the "respiratory murmur *was* detected in the right lung:" there remained also dulness in the right infra-clavicular region.

Case X. is admitted by the author to be something else than phthisis; "a deficiency of nervous power" is the only tangible diagnosis offered. He appears to have been, malgrè the omnipotent nervous system doctrine, at some difficulty to "define the nature of the disease," a circumstance which does not affect us with any great surprise, seeing that the boy was obviously in moderately good health, with the exception of his having lost flesh. Any ancient crone of the Doctor's acquaintance will be able to inform him that this is no very uncommon appearance in growing boys of fourteen years of age. Altogether it was thought a very good case for the flesh-brush, the mode of action of which is thus summed up by the very ingenious Doctor. "Its grateful influence is felt by every fibre of the body. Every molecule (!) of organic matter is placed under new circumstances by its action; the blood is facilitated in its motion, is improved in its properties, and, as a necessary consequence,

is more equally distributed; and hence a more vitalized stream is transmitted to every part of the animal economy."

The eleventh, and, we are happy to say, the *last* case, exhibits in the fullest perfection the utter ignorance of Dr. Holland upon the subject he has undertaken to elucidate. Those of our readers who imagine that we must have given an exaggerated picture of that ignorance will see reason no longer to doubt our fairness. The truthfulness of our estimate we will gladly base upon the facts we are about to mention.

The subject of the case is a young woman, aged 22, who, eighteen months previously, after the sudden suppression of the menses, took cold, and was seized with severe pain in the chest and great difficulty of breathing. The symptoms became aggravated, and she was at last found to suffer from acute inflammation of the left lung. She was bled and blistered. The acute symptoms were subdued, but, even when she was able to leave the house, *there was scarcely the slightest respiratory murmur to be detected in the left lung*, except feebly at the upper portion of it. When her health appeared to be re-established, there was still the absence of the respiratory murmur. The left side of the chest was exceedingly dull on percussion. She was afterwards free from all pain, and there was no cough nor difficulty of breathing, except on more than ordinary bodily exertion. The following winter she again took cold, and was attacked with cough, copious expectoration, profuse perspirations, and hectic fever. The abdomen was unnaturally *large* and tympanitic, and so sensitive to the touch that she could not bear the slightest pressure; urine scanty; mouth aphthous. "There was no respiratory murmur to be detected at the lower two-thirds of the left lung. In the upper third there were mucous and sonorous râles." Is there a tyro of the first form in a Dublin School of Medicine who does not see the nature of this case? The author prefaces it by saying it is "interesting in reference to the treatment of *consumption;*" there can be no mistake, therefore, as to his opinion. No one but himself could have failed to comprehend that he was really treating a case of acute pleuritis with effusion and subsequently depressed liver! On examining the chest when the patient was *cured*, "there was still the absence of the respiratory murmur throughout almost the entire of the left lung, as well as dulness on percussion." This sagacious observer only remembers one case strictly analogous to the foregoing. It was a young man who was attacked with consumptive symptoms, and whose "*right lung was altogether impervious to the inspired air.*"

We must now conclude our task. We set out with the asser-

tion that we should be able to prove that Dr. Holland is ignorant of disease; it was necessary, to this end, to analyze the cases with which he has furnished us: on other grounds it was still more necessary. Dr. Holland has excluded himself from medical criticism from henceforth, not so much from his having undertaken the practice of a system at variance with medical philosophy, but because, had he no system to defend or doctrines to oppose, he does not possess the slightest claim to notice as an ordinary observer of received medical facts. He is, therefore, no longer a subject for criticism, not because he has made Dr. Quin his friend, but because he has made every man of the lowest medical attainments his enemy; in short, not because he chooses to give medicines in smaller doses than his quondam brethren, but because he is not capable of recognising the diseases for which he is administering them. Little shall we be expected to enter into the question as to how far Dr. Holland's cases bear out his therapeutics. So inconsequential a reasoner is not likely to render us aid in this particular, and, of course, as the diagnosis is unsound, the whole conclusion is vitiated. We have frequently mentioned cod-liver oil among the drugs used by the author. As far as he is concerned, this invaluable remedy remains *in statu quo*. No conclusions can be fairly drawn from such a therapeutical farrago as that presented by this small-dose writer. We have too recently brought the merits of this valuable therapeutical agent before the readers of this Journal, to render it necessary for us to rescue it from the praises of Dr. Holland. We sincerely hope that the oil will not be compelled to assume the motto, "save me from my friends," an event which appears not very unlikely.

Still less shall we be expected to undertake the discussion of the system of Hahnemann. In truth, Dr. Holland has only served up this system in scanty measure at present. It must be remembered that we have been engaged with this gentleman in his transition period. He is in the position, now, more of a jackall than of the full-blown homœopathic lion. The readers of these books will be dropped by a gentle descent into the hands of the advanced masters. This is the exact peril, indeed, we saw they might be in danger of falling into, or we should not have filled so many goodly pages with these details. Very early after homœopathy raised its head among members of the profession, our lamented coadjutor, the late Dr. John Oliver Curran, pretty satisfactorily settled its claims to consideration, in an article in this Journal[a]. When we think that

[a] Vol. i. N. S. p. 173.

the interests of the profession require that the pages of a scientific periodical should be occupied with such a discussion, we shall not be wanting in alacrity to expose again this masterpiece of medical folly and humbug. But we shall choose for our basis some book written by a man bold in his delinquency, ingenuous in his attacks, an avowed enemy to medical science, who fully and fairly states his principles, and fully and fairly brings forward his facts.

Recherches sur les Maladies des Os, désignées sous le Nom d'Ostéomalacie, et Lettres sur la cause principale des morts subites survenues pendant l'Inhalation du Chloroforme. Par. G. P. STANSKI, D. M. P., &c. &c. Paris: Germer Bailliere. 1851. 8vo., pp. 128. Avec Planches coloriées.

Researches on the Disease of the Bones designated Osteomalacia, and on the chief Cause of sudden Death during the Inhalation of Chloroform.

THIS *brochure* is not one which recommends itself by anything very original, either in the matter or in the manner of treating the subject. It is, however, a tolerably good *resumè* of what is generally known upon mollities ossium, and some of our readers may thank us for directing their attention to it.

The term osteomalacia Dr. Stanski does not confine to softening of the bones arising from one effect, but under it he includes the diseases produced by many and widely different causes, for example, rachitis, which he regards as differing merely in degree; scorbutus, syphilis, scrofula, and old age.

It is a disease which prevails in most countries, and at all ages of life. Of 32 cases collected from authors, 1 occurred in a new-born infant; 8 in persons from 16 to 30 years; 6 from 30 to 40; 3 from 40 to 50; 4 from 50 to 60; 2 above 60; and 8 of whom the ages are not given, but which M. Stanski supposes from their history to have been between 20 and 40 years of age. Of these 32 cases, 23 were females and 8 males.

Our author dissents from the explanation given by Herrisant, Morgagni, Moraud, Caspari, and others; and attributes the essential nature of the disease to depravation (in various ways) of the blood.

"The parts," he observes, "which contribute to the nutrition of our organs, are the blood, the capillary vessels, and probably the nerves. Of these, the blood being the most important, any alteration of this fluid must exercise a baneful in-

fluence upon our organism; and upon the quality of this fluid, essentially nutritive, will depend the integrity of the nutrition of the tissues of the body.

"The state of the blood, on the other hand, is influenced by various circumstances, some of which surround us, as air, aliments, climate, &c.; others are internal, such as the healthy or morbid state of the organs which concur in the elaboration of this fluid. Now the blood containing matters which ought to be assimilated to the tissues of our organs, it may happen that the peculiarities and the composition of this fluid may be altered to such a degree, that, instead of being able to assimilate their respective portions, their tissues may appropriate, or rather receive, from the vitiated blood, substances foreign to their organization, and in this way give rise to the profound alterations and to the degenerations which we observe every day."

Under the head of pathological anatomy the author has carefully described the changes of form and intimate structure which the bones undergo. The symptoms are classed under two heads, the *primitive*, dependent upon the intimate nature of the affection, and the *consecutive*, which result from the disturbance of the functions of other organs. Pains in the extremities, in the pelvis, along the vertebral column, &c., deviations from the natural form, curvatures of every variety and degree, are among the former; and among the latter, disturbances of the digestive system, or of other organs which may be concurrently affected by the same diseases, as cancer, syphilis, &c., or which result from compression.

The deformity may be comparatively slight, or it may be grotesque or monstrous, as Dr. Stanski has shown in the plates appended to the volume.

Lobstein and Guerin have propounded diagnostic differences between rachitism and osteomalacia; but Dr. Stanski agrees with P. Franck and Eckmann that the difference is only in degree, and he has shown that the points of distinction usually laid down are not correct. He has, however, detailed the symptoms which distinguish the affection, when it is a sequence of rickets, from those which are developed when it is a consequence of cancer, scorbutus, syphilis, &c.

The following prognosis in this most melancholy complaint will form an appropriate introduction to the notice of the treatment.

"Osteomalacia is a very serious disease, not so much in itself as by the disturbance which it occasions in organs indispensable to life. All the means as yet employed having been

ineffectual, it may be considered as incurable, and almost always fatal, especially when general and at an advanced stage. However, the prognosis is more favourable when the disease is observed at an early period, if the patient be not too old, too feeble, or too much exhausted by anterior diseases, and, in the last place, when the cause of the disease is scorbutic or syphilitic. In all these cases, the disease being essentially chronic, those who are thereby affected may have their existence prolonged for a considerable time."

Under the head of treatment, after again referring to the hopelessness of success in certain cases, in others Dr. Stanski observes:

"The person must be removed from all influences which may favour the development of the diseases; he should be transferred to a healthy, warm climate, or at least to the country; take exercise in the open air; use a succulent diet; abstain from all habits which exhaust and deteriorate the health; lastly, if a female, she is to be forbidden to marry, since delivery has often been the occasional exciting cause of the disease."

In the worst cases we must content ourselves with palliative measures, choosing such positions and postures as will best counteract the flexuosities of the bones, and which will not cause others equally inconvenient. Lastly, if the ramollissement be local, Dr. Stanski advises the removal of the diseased part.

To this essay are appended two letters on the cause of the sudden deaths which have occurred during the use of chloroform; and their importance is pretty much limited to the claim they make, on behalf of the author, to have been the first who attributed these unfortunate results to the chloroform having been inhaled in an upright posture.

Before concluding these few remarks on Dr. Stanski's work, which we have written chiefly with the view of calling the attention of our readers to it as a book of reference, we must express our regret at the very slight notice of the condition of the urinary secretion amongst the symptoms of the disease, as described by him. Its great importance is well illustrated in Dr. Macintyre's case, in our review of the last volume of the Medico-Chirurgical Transactions in our present Number.

Medico-Chirurgical Transactions. Published by the Royal Medical and Chirurgical Society of London. Volume the Thirty-third. London: Longmans. 1850. 8vo. pp. 360.

General Index to the first thirty-three Volumes of the Medico-Chirurgical Transactions. Published by the Royal Medical and Chirurgical Society of London. London: Longmans. 1851. 8vo. pp. lxxx. and 236.

In our first Number for last year we noticed the various points of interest in the thirty-second volume of the Transactions of this Society, and, in doing so, expressed our regret at the diminished quantity of matter contained in it, and in the volumes which immediately preceded, being apprehensive that this was an indication of the decadence of one of our most ancient British medical societies, one which we were accustomed from our student's days to revere, as having tended so much to the cultivation of medicine and surgery in the present century. With pleasure, then, we greeted the appearance of the volume now on our table, which is not alone of goodly dimensions, but is filled with valuable and original matter. Much of the interest which was formerly attached to this series has, we must confess, disappeared, in consequence of the admirable manner in which the proceedings of the Society are published in our weekly and monthly periodicals; yet we think that an analysis of the contents of each volume, as it appears, cannot fail to prove both useful and acceptable to our readers.

In the present volume twenty-five communications are published, and as all of them contain matter of more or less practical value, we will proceed to analyze, as concisely as possible, the important features which they present. We may premise that the essays are inserted in the volume in the order in which they have been read before the Society.

The volume opens with the account of *A Case in which a foreign Body was impacted in the Right Bronchus*, from the pen of Dr. Gregory Forbes. The symptoms attendant on an accident of this nature are of so formidable a character as to lead the majority of surgeons to the conclusion that the extraction of the body should be attempted as soon as possible, when no special circumstances contra-indicate an operation; yet some are of opinion that operative interference is imprudent, inasmuch as in many cases the foreign body has been ejected by the efforts of nature, and in all, the precise indications for the operation are uncertain, and "the introduction of instruments within the air-passages is a difficult and dangerous proceeding." The au-

thor of the paper inclines to the opinion that early operative interference is usually advisable; and the case he narrates (although probably any operation would not have averted the fatal results) bears out, we think, this view.

A female aged 46, while eating some broth on the 10th of May, 1849, felt what she believed to be a piece of bone, covered with gristle, pass into the windpipe. She was immediately attacked with symptoms of suffocation, and severe spasmodic cough, and became black in the face. On the next day she was seen by Dr. Forbes, when her voice was hoarse, the respirations only from ten to twelve in the minute, accompanied by a wheezing noise and a constant short cough, and she complained of pain at the upper part of the chest, *at the junction of the second rib with the sternum*. On auscultation, the left lung was in a comparatively normal condition, while in the right the natural vesicular respiration was scarcely perceptible, and "a prolonged and peculiar ronchus was heard throughout the lungs, but most distinctly over the point to which the pain was referred." The symptoms continued severe until the fourth day, when they were much mitigated; and a consultation being then held, it was decided that no operation for the removal of the foreign body should be attempted. On the twenty-first day after the accident, the symptoms, which were "disturbed nights, paroxysms of fever, occurring almost daily, and generally in the afternoon, profuse night-sweats, general pain, and paroxysmal cough," became aggravated, and the expectoration increased, amounting to a tea-cupful in the day: still no operation was attempted. For the next three weeks a remission in the severity of the symptoms again occurred, but on the forty-second day the expectoration, which before had been a frothy mucus, became purulent, offensive, and much increased in quantity: the pulse was 136, and the respirations forty-four in the minute. She died on the fifty-sixth day after the accident.

On examination after death, a pleuritic abscess was found on the right side close to the diaphragm, and about the size of the palm of the hand; the lower two-thirds of the right lung were dense and infiltrated with offensive pus, from the description, in a gangrenous state. The cause of this condition, and of the symptoms during life, was rendered manifest on slitting up the right bronchus; a small piece of bone, weighing, when dry, three and a-half grains, being found firmly impacted in the orifice of the third branch given off from the bronchus which passed into the middle lobe. All the other organs in the body were comparatively healthy.

This is a most instructive case, and one from which we

think the conclusion must be drawn that, in similar accidents, surgical interference is demanded as early as possible before the occurrence of grave symptoms; for although a forceps introduced into an opening in the trachea may not reach the foreign substance, we cannot predicate what change of posture of the body may effect in altering its position, as in the celebrated case of Mr. Brunel.

The next paper is by Mr. Campbell de Morgan, on *Section of the Tendo Achillis in some Cases of Fracture of the Bones of the Leg.* This operation, not unfrequent on the Continent, has not attracted much notice in the British islands, certainly not as much as it seems to merit. M. Meynier first performed it in France, in a case of severe fracture of the tibia and fibula, attended with such violent spasms of the muscles of the leg that suppuration had taken place, portions of some of the muscles had been destroyed, the ends of the bones were exposed and protruded, and the inferior portions drawn behind, so as to form an angle with the upper. Before resorting to either of the operations of sawing off the ends of the bones, or amputation of the limb, which were proposed in consultation, M. Meynier thought he would try the effect of division of the tendo Achillis, and the result was immediate and almost complete success. M. Bérard and M. Laugier have also had recourse to this operation; the former to enable him to reduce the fractured bones in compound fracture at the malleoli, and the latter in oblique fracture of the tibia, and both with favourable results, as regarded the immediate effect.

Mr. De Morgan describes two cases in which this operation was attended with complete success; one from the practice of his colleague, Mr. Shaw, at the Middlesex Hospital, and the other from his own, in the same institution. In Mr. Shaw's case, the fracture extended through both the malleoli, and there was great distortion at the ankle-joint, owing to the foot being twisted to the outside. Although it was easy to restore it to its proper position, it was impossible to retain it so, from the violent spasms which immediately ensued. Various apparatus were used, and the limb placed in every position, with the view of overcoming the spasmodic action of the muscles; but all being unavailing, the tendo Achillis was divided, when the difficulties at once ceased, and complete recovery took place in the usual time. In Mr. De Morgan's case there was fracture of the tibia and fibula, that of the tibia being very oblique. Nothing could overcome or obviate the spasms, and on the ninth day the tendo Achillis was divided, from which time re-

covery proceeded in the usual manner. The result of these cases is highly satisfactory, as regards the value of the aid that the surgeon may derive in some cases of fracture of the leg from this operation. We need scarcely add that the operation is performed by the usual subcutaneous section practised in tenotomy[a].

Dr. Jenner next publishes an interesting essay *On the Identity or Non-identity of the specific Causes of Typhoid, Typhus, and Relapsing Fever*, in which, after a concise account of the grounds from which he draws his conclusions, and an outline of the statistics on which they are grounded, he propounds, as the result of his inquiry, the induction that "the specific causes of typhus and typhoid fevers are absolutely different from each other; and that it is in the highest degree probable that the specific cause of relapsing fever is different from that of either of the two former." The entire question of the causation, the course, the symptoms, the lesion, and the sequelæ of these fevers, has been most ably treated by Dr. Jenner, in a series of papers in the Monthly Medical Journal, reprinted also in a separate volume, a perusal of which will well repay our readers. As we purpose to analyze his views more at length in our next Number, we shall not dwell on them at present.

The fourth paper in the volume contains an interesting account of a *Case of complete intestinal Obstruction, in which the descending Colon was successfully opened in the Loin*, by Mr. Field, of Birmingham. It occurred in a corpulent, muscular man, thirty-three years of age, a coach-axle forger by trade. He had always enjoyed good health until about twelve months before the operation, when his bowels became irregular, the stools being scanty and voided with difficulty. From this time the symptoms became daily worse, and about four days before he was seen by Dr. Field the natural action of the bowels entirely ceased. He was at first treated with calomel and opium in full doses, bleeding, warm baths, and enemas of castor oil and turpentine. Not more than a pint of fluid could be injected into the rectum, and the colon tube could only be passed up to the distance of eight inches when it was obstructed. Croton oil was also administered, both by the mouth and in enema, but only "the most trifling portion of hardened fæces" was brought away. This plan of treatment was followed up for twelve days,

[a] At page 205 of our last Number, Professsor Smith describes a case in which he divided the tendo Achillis with decidedly favourable results.

when, all medical means being evidently useless, sixteen days having elapsed without any evacuation from the bowels, Amussat's operation was performed. The steps of the operation are thus described by Mr. Field:

"As the patient lay on his back no indication of the precise nature or situation of the obstruction was observable. The abdomen was equally swollen on both sides, presenting everywhere the same elastic resistance to pressure; the sound on percussion, being generally clear, was duller as it approached the loins. As the patient lay on his belly no bulging was observable in the lumbar region of one side more than in that of the other: percussion elicited a rather duller sound on the left than on the right side. The patient being extended on a bed with his face downwards, a transverse incision was made on the left loin, beginning at the ridge which marks the external margin of the erector spinæ muscle (about two inches from the spine), and carried directly outwards. This incision was five and a half inches long, and was situated a finger's breadth above the crest of the ilium; it passed through the skin and fat nearly one inch in depth, down to the latissimus dorsi muscle. This muscle, and the quadratus lumborum, were now divided to the extent of the incision of the skin, and a layer of fat bounded on the inside by the external margin of the erector spinæ muscle was brought into view. On dissecting this away to the depth of about half an inch, a thin transparent membrane was exposed. From the appearance of this membrane, which it was conceived might be the intestine, it was thought advisable to pass sutures through it, to retain it in its position, and subsequently to affix it to the edges of the wound. However, on penetrating it with the knife, a mass of soft granular fat started through the incision. A very large quantity of this fat was cautiously dissected away, and the finger was then introduced to search for the bowel, but no precise indication of it could be felt; the finger, when passed upwards, rested on the lower part of the left kidney, while downwards it came in contact with the inner margin of the crest of the ilium. The wound being now of considerable depth, it was necessary to proceed with great caution, and clear away the fat little by little, which proceeding, from the looseness of the nature of the fat, was rather difficult, and occupied some time.

"At length the bowel was brought into view, at the depth of about four inches; it was highly vascular, and having been cleared of fat, sutures were passed through it and held by assistants. An incision half an inch in length was made into the bowel, and an immense quantity of light-coloured fluid fæces immediately escaped. The patient had been vomiting similar fæcal matter during nearly the whole of the operation, but this vomiting now entirely ceased, and he was relieved of all his symptoms. The opening in the bowel was fastened by sutures to the skin; a large bread poultice was placed over the wound, and retained by a bandage passed round the

body, the patient being enjoined to lie on the left side to facilitate the escape of the fæces. Scarcely two ounces of blood were lost during the operation."

From the effects of the operation he recovered completely, being able to sit up on the nineteenth day, and an artificial anus was established in the lumbar region. He lived for a year and nine months afterwards, during which time he had acquired his full weight, and was able to do as much work as at any time in his life, suffering only occasionally from temporary constipation. He, however, became intemperate and died dropsical, the operation of tapping having been required some time before his death. On *post mortem* examination it was found that the cause of the obstruction was situated in the sigmoid flexure of the colon, being "about four inches in length and three-fourths of an inch in diameter. When cut into, the whole of this portion was found to be filled with a plug of apparently firmly coagulated lymph, which entirely obliterated the canal."

We have given a rather extended analysis of this case, which reflects great credit on Mr. Field, both for his skill in diagnosis, and the manner in which the operation was performed. We have now numerous cases on record in which the operation of forming an artificial anus has been successfully resorted to in obstruction of the intestinal canal. The great difficulty in coming to a decision in any given case depends on the doubt as to where the obstruction exists. Nor can any decisive rules be laid down to direct our diagnosis, if we except the information to be derived from the introduction of O'Beirne's long colon tube, when the disease, as in Mr. Field's case, is within reach of the instrument; when it is thus detected, not a moment, after the failure of the ordinary medical resources, should be lost in having recourse to Amussat's operation, the favourable result of which is now so well established.

The next case, also one of *Complete Intestinal Obstruction*, is by Mr. Josiah Clarkson, of Birmingham. The impediment in it arose from disease of the sigmoid flexure of the colon and the rectum, and the descending colon was opened in the loin successfully. The patient was a robust young girl, aged 21. After the usual medical treatment had failed, twelve days having elapsed without any evacuation from the bowels, Amussat's operation was performed in the usual manner. Mr. Clarkson gives the following practical directions for ascertaining the spot where the bowel is to be found:

"Two fingers' breadth above the crest of the ilium, and midway between the anterior and posterior superior spinous processes of the same bone, is the spot beneath which the intestine will generally be found. This mode of finding the exact situation was first pointed out to me by Mr. Hodgson, at the time of the operation; and since then I have frequently proved its accuracy on the dead subject."

The patient recovered, with an artificial anus, the only annoyance being the tendency of the orifice to contract and block up the passage, as usually happens in these cases. This, in spite of all the means that could be used, eventually caused her death, nearly fourteen months after the operation. On *post mortem* examination, the obstruction, which existed about six inches from the lower termination of the rectum, and on a level with the fundus of the uterus, was found to be caused by a dense cartilaginous substance which surrounded the intestine in this spot, and completely obliterated its canal.

Dr. Dundas Thompson, Professor of Chemistry in the University of Glasgow, gives an account of his *Chemical Researches on the Nature and Causes of Cholera.* As the essay is one filled with experimental facts, it does not admit of analysis; and we shall, therefore, give the conclusions at which he arrives in his own words:

"1. That the incipient stage of cholera does not differ materially from the common forms of diarrhœa, inasmuch as its treatment is successfully managed by similar means; and this result may lead to the inquiry,—Does not the removal of the symptoms of the disease by narcotics, and, therefore, the retention of the fluids in the system, afford an argument against the idea of a morbid poison being the cause of cholera?

"2. That, in the second stage of cholera, a lymphatic fluid is diffused from the blood into the intestinal canal, corresponding exactly in chemical composition with that secreted or diffused through the serous membranes in hydrocele and hydrocephalus, and other forms of dropsy. Compared with healthy blood, it appears that the salt which has diffused most largely into the intestines is common salt, while the albumen of the blood possesses this power of transference generally in a very limited degree. The facts seem to show, that in this stage, instead of, as in the natural state, the diffusive power of the mucous membrane being exerted from the intestines towards the blood, the reverse action occurs; thus pointing to a parallelism with purely physical phenomena. Conjoined with other characters, they supply an argument for the inquiry,—May not cholera be an *epidemic intestinal catarrh*, influenza being an *epidemic respiratory catarrh?*

"3. In the third stage the lymphatic fluid ceases to be poured

out from the blood. The bile is excreted, and the normal diffusion from the intestines to the blood resumes its action.

"4. There is no evidence of the existence of any organic body in the atmosphere during the prevalence of cholera."

The following paper contains the account of an interesting case of *Stricture of the Œsophagus*, which proved fatal two years and three months after soap-lees had been accidentally swallowed. The symptoms were almost precisely analogous to those which were presented in the many similar cases that are on record: namely, apparently complete recovery from the immediate effects of the accident; symptoms of difficulty in swallowing, occurring many months—in this case ten—afterwards; the patient being unable to get any solid food into the stomach, it being returned by the mouth, after having been retained in the œsophagus for a space; rapid improvement at first, under the use of bougies, but eventually complete closure of the passage; and death, with the most frightful sufferings from hunger and thirst, the torments, as appositely remarked by Dr. Basham, resembling those of the fabled Lydian king:

> "Nec bibit inter aquas, nec poma patentia carpit
> Tantalus infelix! quem sua fata premunt."

The deduction to be drawn from all the recorded cases of œsophageal stricture produced by local irritants is, we fully agree with the author, that as soon as the immediate inflammatory symptoms have been subdued, the bougie should be employed daily, and its use continued for many months, even in the absence of any indications for its necessity. Indeed its introduction, at short intervals, should not be omitted during the remainder of the individual's life.

The next essay is by Dr. George Johnson, in continuation of those he has previously published on the *Proximate Cause of albuminous Urine and Dropsy, and on the Pathology of the Renal Blood-vessels in Bright's Disease.* To his former observations we owe much of the light that has been of late years thrown upon the pathology of this most important affection; and he states, in the commencement of his present communication, that subsequent observation has confirmed the opinion he originally expressed, that an altered condition of the secreting cells of the kidney is the first morbid change which can be detected.

"The various changes in the secreting cells, just now enumerated, produce one common result; viz., an imperfect elimi-

nation of the renal secretion. The acute desquamative process rapidly fills the tubes with epithelial cells. The chronic desquamation destroys the life of the cells, arrests their reproduction, and leaves the tubes denuded. The fatty engorgement of the cells tends to obstruct the tubes, and so to impede secretion; and probably each visible deviation from the normal appearance of the epithelial cells is attended by a corresponding imperfection in the performance of their function."

Dr. Johnson compares the effects produced on the renal circulation, from the imperfect elimination of the urinary constituents,—caused by the blocking-up of the tubes in consequence of the altered action of the secreting cells, that has been termed *desquamation*,—to the change effected in the pulmonary circulation by the retention of carbonic acid in the blood; and thus analogically conjectures that the circulation is first retarded in the inter-tubular capillary vessels, and eventually, that the Malpighian capillaries, and the arteries which supply them, become gorged with blood. The reasonableness of this hypothesis we fully admit, and accord with the author as to its being fully borne out by the symptoms which are present during an attack of acute desquamative nephritis. The morbid alterations which Dr. Johnson has found in the circulatory apparatus of the kidney in chronic renal disease are, thickening of the walls of the arteries, most marked in the smallest vessels, and hypertrophy of the coats of the Malpighian capillaries; the canal being apparently normal, or perhaps slightly narrowed, while the inter-tubular capillaries and veins are less numerous than in the healthy kidney, but their coats present no appearance of thickening, or of any other morbid change.

"The pathological explanation of these changes in the renal blood-vessels appears to be this. There is an imperfect elimination of the urinary constituents, in consequence of changes in the secreting cells, produced by an effort which they have made to excrete abnormal products. Deficient excretion at once leads to impeded circulation, the obstruction occurring at the very point where the excretion should be effected, viz., in the inter-tubular capillaries. The impediment reacts backwards upon the Malpighian capillaries, which in a sudden acute attack become ruptured, and allow the blood to escape into the urinary tubes; but when the disease has been of longer duration, they become thickened, and permit only the serum of the blood to escape. The thickening of the Malpighian capillaries is probably preservative, and is intended to enable them to bear the increased pressure to which they are subjected during the continuance of the disease.

"The thickening of the arteries, which proceeds simultaneously with that of the Malpighian capillaries, affords support to the opi-

nion entertained by some physiologists, that the smaller arteries exert a propulsive influence upon the blood. The remarkable hypertrophy of the muscular coats of these vessels seems to have for its object to assist in driving the blood onwards through the inter-tubular vessels in which the impediment exists. Finally, the gland-cells being destroyed, and the process of secretion arrested, the circulation ceases, the tubular tissue wastes, and oil-globules collect in the canals of the blood-vessels. This appears to be the order in which the various changes occur, and the probable relation which they bear to each other. So far as my observation has extended, the thickening of the vessels appears to be associated with all the forms of deposit in the tubes, and is in proportion to the degree in which the tubes and secreting cells are destroyed, as well as to the duration of the renal disease."

Dr. Johnson concludes his paper with some observations on renal dropsy. The result of his investigations confirms the explanation of Dr. Bright, that it is caused by capillary obstruction, and a consequent arrest of poisoned blood in the capillary vessels.

The next essay, that by Dr. Quain *on Fatty Diseases of the Heart*, we have reviewed at length in our last Number.

In the following paper, Dr. Macpherson gives an account of the successful extraction, by the lateral operation, of a bullet from the bladder, in which it had been lodged by a gunshot wound at the battle of Chillianwallah, and a short notice of fifteen similar operations which had been previously recorded is appended.

Dr. Maclachlan, physician to the Royal Hospital at Chelsea, next narrates a *Case of Scrofulous Abscess of the Anterior Mediastinum, communicating with both Sides of the Chest, the Pericardium and Trachea, forming a Tumour above the Clavicle, and simulating Aneurism of the Innominata Artery or Arch of the Aorta*. Notwithstanding this elaborate title, in which the author's views of the nature of the case are so wordily detailed, the paper does not require any more notice from us than a statement of our opinion, that the facts detailed do not bear out this view. The conclusion we have come to from the narrative given, is, that the case was one of empyema of the right pleural sac, opening into the mediastinum and pericardium, and pointing above the sternal end of the right clavicle; therefore, too ordinary a case for admission into the Transactions of the Medico-Chirurgical Society of London.

The twelfth article consists in the description of a case of *Mollities and Fragilitas Ossium*, in which the urine was strongly charged with animal matter. During life the symptoms were:—great emaciation; diminished temperature of the surface of the body; appetite keen, often voracious; bowels sluggish, but easily excited to diarrhœa; and pains all over the trunk, eventually becoming fixed in the left lumbar and iliac regions, and obliging the patient to observe a semi-bent posture, on account of the agony caused by every attempt at movement of the body on the thighs. The case was for a length of time under the observation of Dr. Macintyre, who furnished the report of it to the Society. The urine, which seems to have been at first natural, became gradually loaded with animal matter, its specific gravity varying usually from 1035 to 1040; and death was eventually caused by this continued exhausting excretion. Of the various remedies tried with the view of checking it, alum alone seemed to have even a temporary effect. Towards the close of life, when the sufferings from the lumbar pains were extreme, the liberal use of Dover's powder with the guaiacum mixture, and the external application of the alcoholic tincture of aconite, mitigated them somewhat. At the *post mortem* examination, the thoracic parietes presented the following appearances:

"On dividing the cartilages at the usual place, it was found that the adjoining extremities of the osseous ribs crumbled under the heel of the scalpel; and on prosecuting the dissection it was discovered that all the ribs, throughout their whole length, were soft and brittle, so that they could be easily cut by the knife, and readily broken at any point, by the exertion of a very moderate force. They had evidently lost much in size and weight, as well as in consistence and tenacity; their outer encasement, or laminated portion, was very thin, loose, and fragile, yielding and crackling when pressed between the fingers and thumb; their interior was charged with a soft, gelatiniform substance, of a blood-red colour and unctuous feel. The sternum was in a similar state of softening and fragility, first bending, and then snapping across when raised and turned back; but its under surface presented a deeper and more extensive redness, and its cancellated structure was more loaded with the coloured matter."

There was no important deviation from the normal condition in any of the thoracic or abdominal viscera. The spine was then examined:

"The three upper divisions of the column were found to have undergone, more or less, the same morbid change of structure which

was discovered in the ribs and sternum. All presented the same characters of softness and brittleness, but the dorsal and lumbar had evidently suffered most from morbid degeneration and interstitial absorption, their bodies scarcely equalling those of the cervical in thickness.

"With the lumbar vertebræ, disappeared the characters of active disease and disorganization. The sacrum and flat bones of the pelvis were unyielding and impenetrable by the knife, but in colour they exhibited, it was thought, an unnaturally grey tint. Beyond this the examination was not prosecuted, as the cylindrical bones of the extremities were found to resist all efforts to bend or break them by manual force."

The microscopical appearances of the bones in this highly interesting case have been published by Mr. Dalrymple at much length in the second volume of the present series of our Journal, page 85, and to his paper we refer our readers for an account of them. And Dr. Bence Jones has published an elaborate analysis of the urine, as examined by him during the patient's life-time, in the Philosophical Transactions of the Royal Society of London for 1848.

The most important practical deduction from the account of this case, so admirably given by Dr. Macintyre, is, that the great obscurity which involves the diagnosis of this rare disease may be much diminished by an attention to the condition of the urinary excretion.

In the next article, the account of a *Case of very large Hæmatocele of the Spermatic Cord, proving fatal after ten Years*, is given by Mr. W. Bowman, and Mr. Curling appends to it the history of a *Case of very large Hæmatocele of the Tunica Vaginalis.* The subject of Mr. Bowman's case was a Leicestershire farmer, aged 60. The disease originated ten years before his death, and was caused by his having been accidentally thrown from his horse against some railings. This gave rise to a swelling in the right inguinal canal as large as a hen's egg, oval, firm, but elastic, and receiving no impulse from coughing.

"Up to three years ago it had remained in the same situation, having merely undergone some slow enlargement, when, at that date, during exertion in walking, it was felt by the patient to become suddenly larger and heavier; and, on examination, this increase was found to depend on a vast effusion of blood, not merely about the canal, but into the tissues of the scrotum, so that the whole of these parts were enormously distended, and it was impossible to ascertain what the condition of the testicle or tunica vaginalis might be, though they had previously been healthy. When

time had been allowed for the disappearance of the ecchymosis, and the integument had regained its natural colour, the tumour manifested no disposition to recede, rather indeed to augment in size, and the surface of the scrotum began to exhibit large distended veins meandering across it. There was fluctuation, and a trocar was cautiously introduced by Mr. Paget, of Leicester, who had been called in to the case soon after the period when this enlargement had occurred. 'On introducing the trocar,' says Mr. Paget, in a note, dated Dec. 3, 1848, 'nothing followed but a free gush of blood mixed, arterial, and venous, and I thought I had committed the mistake of plunging a trocar into a vascular tumour, from which might sprout an abundant and bleeding fungus. To my great delight, however, it kindly healed; and though this was nearly two years ago, ulceration and fungus have not yet appeared, nor does the man's complexion bear the tinge of malignant disease. The tumour, meanwhile, has attained a vast size (I should say it is as large as the abdomen), and has never lost its deceitful fluctuation, so that another practitioner has been induced to puncture it again yesterday week, and with the same result, only that now, when called again to see it, I find a *tympanitic* sound on percussion over the upper third, or two-fifths of it, and also, on shaking the tumour, a sound like that which would be produced by agitating a thick fluid in a vessel containing air. This is heard as well as felt, and the patient assures me was not present till after the last puncturing.'"

Mr. Bowman soon after this went down to the country to see the patient, and as it was evident, from the tympanitic state of the tumour, its contents were undergoing decomposition, he first pierced it with a trocar, which gave exit to much fetid gas and some dark brown putrid blood. He then enlarged the opening, and removed "nearly two large wash-hand basins full" of the same kind of blood, mixed with large masses of old coagulum. The patient was at this time labouring under low irritative fever, and he sank on the fifth day after the operation. No *post mortem* examination was made.

Mr. Curling's case, which also proved fatal, occurred in a gentleman aged 79. The scrotal swelling was larger than the patient's head, and extended half way down the thighs. The gentleman laboured under retention of urine when Mr. Curling saw him, and as it was impossible to pass a catheter, the penis was so completely buried in the tumour, he was compelled, though unwillingly, to lay it open. The incision gave exit to upwards of three pints of dark grumous fluid, on the surface of which numerous particles of cholesterine floated. The patient died in a week afterwards, and, on examination after death, the sac was found to consist of a dilated tunica vaginalis, with masses of coagula adherent to its internal surface.

The following is the practical deduction which Mr. Bowman draws from these two cases:

"That hæmatocele has little tendency to undergo spontaneous cure, and that sooner or later it will propably enlarge and prove fatal. There should, therefore, be not unnecessary delay in carrying out the ordinary practice of laying open the cavity by a free incision, when the persistence of the swelling and other circumstances indicate the presence of extravasated blood."

Dr. Beaumont, Professor of Surgery in the University of Toronto, Canada, next relates a *Case of Disarticulation of the left Condyle of the lower Jaw, with Excision of nearly the left Half of the Bone on account of a very large cartilaginous Tumour growing from, and occupying the Site of all this Part of the Bone, save the Condyle and Neck.*

The following is a short communication by Mr. Page, Surgeon to the Infirmary at Carlisle, on *Excision of the Os Calcis in incurable Disease of that Bone, as a Substitute for Amputation of the Foot.* The case which he brings forward in evidence of the advantage of this operation is that of a boy, aged 16, in whom there was scrofulous disease of the ankle-joint, apparently altogether confined to the os calcis. The boy's health having been improved by rest, nourishing diet, and the administration of cod-liver oil, the operation was performed as follows:

"Insensibility having been induced by means of chloroform, an incision, down to the bone in its whole extent, was made from the lower margin of the ulcer, that is, about half an inch below the inner ankle, directly below the sole of the foot, to just below the fibula. This incision would have enabled me to remove the foot at the ankle-joint, if the disease of the tarsal bone had proved more general than I anticipated. A careful examination at this period of the operation having determined me to proceed in my original design, the posterior flap was carefully reflected from the surface of the bone, the insertion of the tendo-achillis separated, and the joint between the astragalus and calcanium reached.

"By the introduction of a small, narrow-bladed scalpel, I succeeded in dividing the ligamentous structures on either side, and also the inter-osseous ligament. This last was the only part of the operation attended with anything like difficulty, forcible depression of the os calcis being necessary to admit of the division of the more distant parts of the inter-osseous ligament, while at the same time great care was required to prevent my injuring the astragalus. I next made two incisions, one on either side of the foot, commencing at the junction of the os calcis with the os cuboides, and ending at the extremities of the first, or transverse incision; dissected this

flap from the under surface of the bone, readily separated the connexion of the calcanium with the cuboid bone, and after a few touches of the scalpel, the former, with scarcely a particle of soft parts attached, was removed. The astragalus and cuboid bones appeared quite healthy. The two plantar arteries, which had been divided near to their origin, and two or three small vessels in the anterior flap, were tied, the parts placed in apposition, and retained by means of strips of lint dipped in cold water, oil-silk and bandage, and the limb was laid on a splint placed on its outer side."

The boy suffered from an attack of erysipelas in the affected limb after the operation, but from this he recovered completely, and "at the end of the tenth week the wound was healed, the foot was firm, and in shape not materially different from the other." In sixteen months after the operation the foot was sound, and he had very good use of it. Mr. Page appends to his essay a notice of three other cases, in which excision of the os calcis had been resorted to in the Newcastle Infirmary for extensive caries of that bone, and which had been attended with success to a greater or less extent.

The next paper is the report of a *Case of Stricture of the Rectum, wherein an artificial Anus was successfully established in the left Lumbar Region*, by Dr. Croker, of Rio de Janeiro.

The following essay is by Dr. Lee, *On the Use of the Speculum in the Diagnosis and Treatment of Uterine Diseases.* After some introductory observations on the history of the instrument, he states that his object in this communication is to define accurately its *legitimate* use and *real* value; and he then proceeds to show, from his own experience, that its value as a diagnostic agent is much more limited than is usually admitted, and that in numerous cases it is most unwarrantably employed. We are not going to enter into the field of angry and rather unprofessional controversy, which this and some subsequent papers read by Dr. Lee before the same Society have caused in London, and with which we doubt not most of our readers are acquainted; but we cannot shrink from expressing our opinion, that the indiscriminate *abuse* of the speculum in the hands of some of the London accoucheurs, as is evidenced by these debates, required some check.

Under the title of *a Supplement to a Paper on Fibro-calcareous Tumours and Polypi of the Uterus*, which was published in the nineteenth volume of these Transactions, Dr. Lee describes a case which he believes to be the first recorded exam-

ple of the occurrence of an abscess in the centre of a fibrous tumour, imbedded in the walls of the uterus. As the case is short, and remarkable in many respects, we extract it in full:

"Mrs. S ——, aged forty years, married, but never pregnant, came under my care in 1843, when I inferred, from the enlarged and hard state of the body of the uterus, shortening of the cervix, attacks of menorrhagia, and other symptoms, that one or more fibrous tumours existed in the walls of the organ. From that period till the close of 1849, I had frequent opportunities of seeing this patient, and of ascertaining by examination, that the uterus had not increased much in size during the six years that I had watched the progress of the disease.

"About the middle of March, 1850, Mrs. S—— was induced to consult another practitioner. She has stated, that six round masses, called balls, were prescribed by him for her, one of which she was directed to introduce into the vagina every night at bedtime. After four of these balls had been used, so much tenderness of the parts supervened, that their further use was discontinued. The pain having increased, the same practitioner was requested to visit the patient, and at this interview, according to the report of the patient's sister, he passed an instrument within the parts. At the time this operation was performed, little or no pain was felt, but soon after acute suffering was experienced in the region of the uterus, and incessant vomiting, with fever, succeeded. The symptoms having assumed an alarming character, I was requested to see Mrs. S—— on the 15th of April. The pain and vomiting partially ceased after the application of leeches, and other remedies, but the inflammation of the uterus was not arrested, and death took place on the morning of the 18th. The day after, the body was examined by Mr. Wharton Jones and myself. The uterus was about the size of a cricket ball, and hard. The ovaria and Fallopian tubes on both sides, and the uterus and rectum, adhered together by old false membranes. Having removed the uterus from the body, an incision was made through its anterior wall, when there flowed out a quantity of greenish-yellow fetid pus. This matter had escaped from an irregular cavity in the centre of a fibrous tumour, which still contained a portion of purulent fluid. The whole lining membrane of the uterus was red and inflamed, and near the cervix appeared softened and disorganized. The anterior lip of the os uteri was of a peculiarly livid colour. The sac of the peritoneum presented no trace of recent inflammation. The cavity in the fibrous tumour from which the pus had escaped is seen in the preparation of the parts, and which is preserved in the Museum of St. George's Hospital."

Dr. Letheby next describes *a Case of fatal Poisoning with Sir W. Burnett's Fluid.* It is, he remarks, the first case that has been recorded in which chloride of zinc caused death; and justly comments on the little notice which a substance now in

such general use with the public, and, therefore, likely to give rise to accidents, has received in our standard toxicological works. The case was that of a little girl, aged fifteen months: but it does not appear whether the solution was administered to her accidentally or not. The child survived ten hours, the symptoms being those caused by the caustic and irritant effects of the solution on the mouth and fauces, and also lethargy or a slight degree of coma. The treatment used by Mr. Miller, who saw the child, consisted in the attempted administration of albumen, but which could not be introduced into the stomach, in consequence of the swollen state of the fauces. The morbid appearances were evidently due to the local action of the poison, and chemical examination revealed the presence of chloride of zinc in the vomited matter, the fluids taken from the stomach, and the tissues of that organ. From experiments which Dr. Letheby performed on dogs, he has come to the conclusion, that the poisonous action of this solution is twofold: first, that of a local caustic and irritant; and, secondly, the production of constitutional symptoms similar to those caused by sulphate of zinc, which, as stated by Orfila, "appears to act by stupefying the brain." In a case which we saw about two years and a half ago, in which nearly an ounce of Sir William Burnett's fluid had been swallowed accidentally, the local symptoms were soon alleviated by draughts of equal parts of warm milk and fluid magnesia.

The following paper consists in the particulars of *a Case in which the Urachus remained open, and a ring-shaped Calculus, formed upon a Hair in the Bladder, was extracted through the Umbilicus.* The man was forty years of age at the time Mr. Paget, of the Leicester Infirmary, who is the author of the communication, removed the calculus, which was effected by simply introducing his finger through the umbilical orifice, when it "caught within the circle of the calculus" sufficiently to enable him to extract it. The following is the description of the condition of the opening at the umbilicus, which was congenital:

"There is a circular deficiency in the linea alba an inch in diameter, its margin being thickened and of cartilaginous hardness. Through this protrudes a hernia of the size of a goose's egg, which, in lieu of ordinary integument, is covered by mucous membrane, the surface, however, becoming dry when exposed for any length of time, as that of a vagina when inverted by complete prolapse of the uterus.

"He never makes his water while the hernia is out; for when

called to an effort for that purpose, the first act of the bladder is gradually to draw into the abdomen the whole of the protruded substance; its first contractions have no other effect, and it seems not to have power to force the urethra until that is accomplished. At the latter part of this act, at the instant of the disappearance of the hernia, there occurs a rather forcible jet of urine from the opening. The flow by the urethra also commences at this juncture, and the bladder is emptied in the usual way, the jet from the umbilicus ceasing, not to be renewed except by a violent accelerating action of the expulsor muscles. He can retain a pint of urine.

"By watching the first contractions of the bladder, it becomes evident, that to the thickened margin of the umbilical aperture are attached the muscular fibres of the bladder extended along the urachus; in fact, that the bladder and urachus are formed into a urinary receptacle, which in shape may be compared to a curved-necked cupping-glass; the urethra passing out at its lower end, and its mouth being attached by muscle to the circular aperture in the linea alba. It becomes evident, also, that the pouch of the hernia is formed by eversion of the posterior part of the neck only, which is of course attached to the upper half of the aperture, and, when protruded, presses upon the hard edge of the lower half sufficiently to prevent the escape of urine, except under straining efforts of the abdominal muscles.

"The hernia is generally out; and he wears a girdle with a thick pad of flannel to catch the jets of water which are apt to occur while he is at work."

The patient recovered completely from the symptoms dependent on the presence of the calculus, and it was thought inadvisable to interfere with the congenital defect.

The next is a *Case of Ileus complicated by Hernia*, in which Mr. Solly performed the operation for strangulated inguinal rupture; but the patient died, from internal strangulation of the small intestine, about a foot and a half of which was found, on *post mortem* examination, lying in the pelvis, nearly black, and enormously distended. It was girt by a round and firm band, which was probably the result of old adhesive inflammation. This band was about an inch and a half in length, and consequently could not have caused strangulation, except the gut was over-distended from prolonged constipation, as occurred in this case.

The two following papers do not require from us any further notice than the mention of their titles. The first consists in an account of "*Two Cases of Absence of the Thyroid Body, and symmetrical Swellings of fat Tissue at the Sides of the Neck, connected with defective cerebral Development*," by Thomas Blizard

Curling, F.R.S.; and the second of *a Case in which an Abscess formed in the Vesicula Seminalis, and proved fatal by Perforation of the Bladder, and Extravasation of Pus into the Abdominal Cavity*, by Mitchell Henry, Assistant Surgeon to the Middlesex Hospital.

The next essay is by Dr. Bence Jones, and contains an interesting account of a *Case of albuminous and fatty Urine.* As examples of what is termed chylous urine are very rare, the author watched this instance with very great care, having made numerous observations each day on the condition of the urine, and the effects of food and medicine on it. The case is the more interesting, as the disease is shown to be under the control of medicine, the patient being able to resume his work, after having been obliged to give it up for nine months and a half, and after having been at least fourteen months and a half ill. He was a married man, aged thirty-two years, a harness-maker by trade; he was always sober and steady, but for the last seven years had suffered much from hardship and want. He ascribed the origin of his illness "to the change of a sitting occupation for a very laborious standing one." Dr. Jones gives in detail his daily observations, which were continued for five months, on the condition of the urine, as affected by food and medicine, concluding with the following summary:

"The result of these observations, made from the 6th of November to the 7th of April, will be best seen by showing in each series the proportion of the chylous urines to the urines free from chyle, supposing 1000 observations had been made.

	In 1000 Observations	
	Chylous in different Degrees.	Free from Chyle.
Thus:—1st. On animal food the proportion is	968 times	32 times.
2nd. Vegetable food ,, ,,	910 ,,	90 ,,
3rd. Pressure belt loose ,, ,,	667 ,,	333 ,,
4th. Pressure belt tight ,, ,,	638 ,,	362 ,,
5th. When matico was taken ,,	474 ,,	526 ,,
6th. When gallic acid was taken ,,	17 ,,	983 ,,
7th. After gallic acid was taken ,,	0 ,,	1000 ,,

"The second day after taking the gallic acid, the chyle and albumen disappeared from the urine; and for the last fifty-eight days no chyle or albumen has been found to be present in it.

"For the last forty-one days the patient has resumed his work. For the last eight days no medicine has been taken, and the urine has remained healthy.

"For the next sixty-one days, namely, from the 14th of April to the end of the 14th of June, there were 311 observations of the

urine. It was never chylous. It was examined once a fortnight, each time it was passed during the day, and I have not found a trace of albumen to be present in it on any occasion.

"From the 14th of June to the end of August the urine was healthy."

The pressure belt consisted in a stout, well-padded belt, so made that by means of straps considerable pressure could be produced on the abdomen and over the region of the kidneys. The gallic acid, which, as is evident from the above table, proved an effectual remedy for the disease, was given in very large doses, one drachm, dissolved in warm water, being taken at first in divided portions during the day. This quantity was continued for twenty-four days; it was then reduced to forty-six and a half grains daily for fourteen days, to thirty grains for seven days, and to fifteen grains for another week, when it was stopped altogether.

The concluding paper in the volume is by Dr. Theophilus Thompson, *On the prolonged expiratory Murmur as a Sign of incipient Phthisis.* He has investigated the value of this sign with much care in the out-patients of the Hospital for Consumption and Diseases of the Chest, to which he is one of the physicians; and the results he has arrived at are highly corroborative of the opinion now so generally held as to its great importance as an aid to the diagnosis of the early stages of consumption.

We regret that we cannot close our notice of this volume of the Transactions of the Medico-Chirurgical Society of London without animadverting on the careless manner in which it has been edited. Typographical errors are very numerous throughout, and in several of the communications a little attention to style, on the part of the editor, would not have been thrown away.

The index to the first thirty-three volumes of the Society's Transactions, which has been just published, reflects the highest credit on its compiler, the librarian of the Society, Dr. John Hennen; and we rejoice to see that the members have presented him with a substantial mark of their estimation of his services. It presents a perfect model of what such an index should be, containing, first, a list of the names of the contributors, in alphabetical order; second, a table of the contents of each volume, and the date of its publication; third, a list

of the engravings, woodcuts, &c., in each volume; and fourth, a general index of the authors' names and the subjects in the thirty-three volumes. This last is full and complete in every particular, occupying no less than 236 closely printed octavo pages.

The Morbid Emotions of Women, their Origin, Tendencies, and Treatment. By Walter Johnson, M. B., formerly Medical Tutor at Guy's Hospital. London: Simpkin, Marshall, & Co. 1850. 12mo., pp. 256.

If an opinion of the progress of British medicine were to be formed from the character of many of the so-called medical works which of late years have issued from the Press, the conclusion which should be arrived at by every candid and intelligent observer must be derogatory to the advancement of medical science during the last quarter of a century, compared with a corresponding period preceding it. We can, however, still boast of many who, possessing natural talents, untiring industry, and patient research, have acquired high reputation, no less for themselves than for their profession.

A new race of writers has lately sprung up among us, who occupy a place between the legitimate medical author and that class, the advertisements of whose works in the newspapers of the day contain some mystical paragraph relative to the disease professed to be cured, followed by a reference to their address, added with the intention of enabling the reader to form a new acquaintance, should he be simple enough to accept the invitation.

The writers to whom we now allude do not, however, condescend to this method of bringing themselves into public notice; it would be offensive to their notions of respectability; still their mode of proceeding is apparently, though not really different. A popular medical subject is selected, the best medical authorities are quoted, hyperbole is freely introduced, and the whole with a perfect indifference to medical criticism, the object in view being to make a book for general readers; the author, nevertheless, always bearing in mind the advice of the renowned Martinus Scriblerus, that "his design should be like a labyrinth, out of which nobody can get clear but himself." To this end the writer adopts a profound obscurity in style, except in the expression of philanthropic feeling, thus rendering an appeal to himself absolutely necessary for an explanation of the doctrines he advances.

It is the duty of the medical reviewer to exhibit such productions in their true colours, not alone on account of their authors, but for the edification and amusement of his readers; and we shall, therefore, now proceed to examine the character of the work, the *catching* title of which heads this article.

The author notices in his preface the obscure character of some of those complaints to which young females are subject, and states, "that he has collected a variety of cases illustrative of each affection which presented itself to him, to form a basis on which, at some future period, a comprehensive theory may be constructed." Such he avows to be his principal object.

After a careful perusal of the book, we have failed to discover any matter of importance which may not be found in previous works, if we except some extraordinary cases, selected with marvellous industry, from various sources, but which are of no value apart from the investigation of their phenomena. From the name of the work we were led to expect that it was psychological in character; but examination proved it to be a mere compilation of the symptoms of hysteria and chlorosis, interspersed with quotations from German, Italian, and English poets, for the probable purpose of making the book more agreeable to the general reader, for whose special benefit the author has, with kind consideration, explained medical terms which might otherwise puzzle the anxious mother of some hysterical young lady. We wish to be understood as not undervaluing the importance of the subject on which Dr. Johnson treats. Every practical physician is aware of the anxiety attending the care of an aggravated form of hysteria. We scarcely know a disease more likely to enlist the kind sympathies of the practitioner, from its tedious character in many instances, its resistance to treatment, and its harassing influence on the patient and her friends; and had the writer of the work before us thrown any new light on its pathology or treatment, we should have cheerfully awarded him our approbation.

The table of contents contains some novelties which must startle even the learned in nosology. The zealous student of M'Bride, Cullen, or Good, will find newly named diseases never before brought under his notice. The "tic tic or hi-cum," the "aria magica," and the "morbus mirandus," have started into life almost by magic. In order to satisfy the natural impatience of our readers to learn something of these medical curiosities, we shall proceed to give a brief detail of the most prominent features of some of them, premising that we do not profess to enter into a minute investigation of their pathology.

The "aria magica" derives its title from the case of a patient who was observed to beat time to a tune which haunted her brain, and was discovered, by close observation, to be the air of "Protestant Boys."

"A person having sung this air, she danced up to him, and continued to dance till she was out of breath. Then the same air was played upon a fife and drum, and she danced up to the drum as closely as possible, till she missed the step, when the motions instantly ceased. They ceased also when the music was changed, or increased in rapidity beyond her power to keep up with it. A continued roll of the drum had the same effect. Here, then, the remedy was apparent, and it was always resorted to on the supervention of these strange contortions."

We may here remark, that it is not stated who was the discoverer of this special and successful mode of treatment. The anti-soporific properties of the drum are generally admitted; but we are not prepared to explain its modus operandi as a therapeutic agent, unless, on the well-known principle, "similia similibus," we are allowed, allegorically, to conclude that the *tympanitis* of the drum exercised a salutary effect on the *tympanum* of the patient! It may be said that this mode of deduction borders on that of the homœopathist: well, we admit there is a similarity, and we may possibly expect that some aspiring disciple of Hahnemann will take advantage of the hint thus thrown out, for a wide field of discovery lies before him. The disease of which our author treats probably suggests an appropriate example: if our new theory be founded on true principle, surely, in a case with marked *globus* the most appropriate remedy should be a *globule!*

The next-named disease which meets our eye is the "tic tic or hi-cum." This malady is exemplified by the cases of two young ladies, the subjects of hysteria, who were constantly affected with a motion of the head and arms, regularly occurring in accurate time, and accompanied by the words "tic, tic," like a clock; occasionally they would utter the words "I cum," or "hi cum." From these premises, the author adds a new disease to those flesh is heir to. Should he be disposed to increase his catalogue, we recommend him to take notes of cases in some large lunatic asylum; he may thus make a new nosological arrangement which must, for originality, throw those of all previous writers into the shade.

Next in order follow "gyration," the "morbus mirandus," &c., with a description of which, however, we cannot burden our pages.

A comparatively long chapter is devoted to those painful

affections of the abdomen, often of a wandering character, and which are so common in hysteria. The author has hit upon the happy idea of giving them "a local habitation and a name," and for this purpose has pressed into his service the four first letters of the Greek alphabet. This is worthy of a former tutor at Guy's Hospital, and must be allowed to be a teaching of pathology "to the letter"; thus, pain seated close to the margin of the ribs, on the right side, he calls *alpha abdominis;* pain under the margin of the left rib is denominated *beta abdominis;* pain in the left side, following the course of the descending colon, *delta abdominis;* while pain on the right side, over the ascending colon, gets the name of *gamma abdominis.* Now we would here, with great diffidence, suggest an improvement to the author's nomenclature, for we cannot help thinking that "gammon" abdominis would sound more appropriately,—this is, however, a matter of taste, and no doubt can be entertained, that, were the public familiar with such terms, a very classical mode of interrogating a patient would be afforded to the practitioner, and an hysterical young lady could, with peculiar complacency, allude to her alpha or beta abdominis. We are more impressed with the value of the suggestion, from the recollection of a patient, who, suffering from a pain in her thigh, described it to us as being seated "in the upper leg." What a relief would not a Greek name afford to persons of such delicate sensibility!

The author regards polite education as the grand cause of hysteria. The defects of the system of education, and the hygienic treatment of young females, have often been commented on and exposed by medical writers, without, as yet, the production of reformation. Still, the mere course of discipline in a boarding-school could not, *per se*, cause hysteria, except indirectly, by the precocious development of the reproductive organs. The picture given by Dr. Johnson of fashionable life in England, is by no means flattering. The following extract applies to this point, and is a fair specimen of the author's style:

"Alas! upon no sybarite bed lies she whose body is enfeebled by nights of dissipation, and whose mind is polluted by the mercenary schemes and lax morality of the gay world. Very sad, too, is the effect of that dishonourable flirtation which the *beau monde* excites and applauds. Infamous, indeed, it is to wind one's self round a trusting heart, and then, like the constrictor, to crush it between our coils. Infamous and despicable he, who, beneath the glare of the chandelier, and in the twilight of ante-chambers, waits and watches, who sighs and simpers with ready sympathy; who speaks with feigned embarrassment; is silent or eloquent, bold or timid, by cal-

culation; whose countenance beams with fictitious admiration, or expresses a studied languish; who, like a piece of rubbed sealing-wax, attracts the pith ball, love, only to repel instantly on contact! Infamous, I repeat, and despicable, is that polished Judas! And who can heal the wound thus inflicted? Trembling like an aspen, the deserted is carried before the physician. But can pharmacy cure the ills of flirtation, or what lotion can wash out love? Shall we combat melancholy by mercury? or endeavour to extract the stings of folly with the forceps?"

The only adjective which occurs to our mind, as conveying the true description of this style, is, by a strange coincidence, the word "hysterical." The reader will, of course, remark the romantic pathos which distinguishes the passage; he will not fail to discover its almost hidden poetry. How smoothly run "lotion and love," "melancholy and mercury," "folly and forceps"!

Were we in a mood for severe criticism, we might observe, that the idea of extracting the stings of folly with a forceps is rather extravagant; but we forbear, as the author has not described the instrument, nor the mode of operating, and these defects may be remedied in a second edition of the work.

Prefixed to the chapter on treatment is a passage from Lucian's Tragopodagra, which serves as an argument for a sarcastic attack on practical medicine in general, but only applicable in particular to such practice as that of the gentleman mentioned by our author, who, having ordered a combination of opium, arsenic, prussic acid, strychnia, and quina, in a mixture, exclaimed, "These I call my great guns, and it will be hard, indeed, if they all miss fire."

We confess to have felt a curiosity respecting the medical treatment which the author would recommend in hysteria; but, after a minute examination of the text, we cannot arrive at any definite conclusion on the subject. He mentions various remedies, but almost in every instance concludes the sentence by deprecating their use. The only one which he vouches for, from personal observation, as being useful, is the hydropathic process; and even this is guarded by a caution which, we may remark, is judicious. Still we suspect that the learned tutor is smitten by the charms of the fair Hydropathy; but let her beware of the "polished Judas," for the "gay deceiver" is already, if not an avowed, a silent admirer of her sister, the artless Homœopathy. He is evidently perplexed, and we know of no means of extricating himself, unless he follow the example of Captain Macheath, and sing,

"How happy could I be with either."

Great stress is laid by Dr. Johnson on hygienic treatment, and it certainly is of vast importance in hysteria: moderate and well-directed exercise will frequently render service in appropriate cases. We think, however, that the author is too heroic on this point: he would have his patient "take long walks, and gallop over the turf, in order to expand the lungs, force a large quantity of air into the blood, to work the muscles, pump out the secretions, and give the cheeks the vulgar hue of the cabbage rose."

He is also an advocate for manual labour: he would send her to the "diggings," not to California for gold, but to the garden for health:—"Let her have a spade manufactured with a blade of silver, and a handle of ivory; that, at least, will not be plebeian."

Certainly not; how could vulgar notions respecting spade husbandry intrude themselves in conjunction with such an exquisite piece of workmanship?

From the character of this work, it may be supposed by some of our readers that even our short notice of it has been uncalled for. As a medical production, it is certainly beneath criticism; but its harmless influence on the public, who latterly have become such admirers of apparent simplicity in medicine, may not be so certain.

Before we part with Dr. Johnson, we would wish to give him a gentle intimation that medical writing is not his *forte*. Let him try his hand at romance or melodrama; in either he might have a proper field for the display of his talents. But in whatever way he may please to exercise his pen, we can have little hesitation in asserting, that, in the words of a *profound* poet,

"None but himself can be his parallel."

Guide Pratique aux principales Eaux Minérales de France, de Belgique, d'Allemagne, de Suisse, et d'Italie. Par le Docteur CONSTANTINE JAMES. Paris: Victor Masson. 1851. 8vo. pp. 523.

THE facilities afforded within the last few years by railway travelling on the Continent of Europe, render it more than ever necessary for the physician to be acquainted with those aids to health which the numerous mineral waters that abound throughout it offer to the invalid. Our readers will, therefore, we are sure, feel grateful to us for bringing under their notice this work of Dr. James, which has only just issued from the

beautiful press of M. Masson. It contains a most complete description of the spas of France, Belgium, Germany, Switzerland, Savoy, and Italy, with an account of their chemical composition, their effects on the constitution, and the diseases in which their use proves beneficial.

The classification of mineral waters, according to their chemical composition, is that usually adopted by writers on their history; and Dr. James, unwilling to depart from this custom, gives a short preliminary chapter on their chief characteristics, under the divisions of sulphureous, ferruginous, alkaline, gaseous, muriated, and bromo-ioduretted waters. But he considers that this arrangement neither fulfils the requisites of science, nor is adapted for correct description, although he admits that it has the unquestionable merit of grouping them together into a certain number of families, distinguished by chemical characters sufficiently well marked to simplify their study. We agree with him that the plan he adopts, of describing them in geographical order, though less scientific, is more practically useful in our present state of knowledge, and is certainly much better adapted for such a work as his, which must partake so much of the nature of a handbook. In his remarks, however, on the mineral waters of each country, he endeavours to bring them as much as possible within the range of his preliminary classification, "with the view," as he says, "of combining the requisites of science and facility in description."

He appends to his book an interesting account of the *natural* vapour baths of Ischia, which is an island close to Naples; of Pozzuoli, on the bay of Naples; and of the celebrated baths of Nero or Tritoli, situated a short distance from Pozzuoli, not far from Cape Misenum. Dr. James gives the following graphic description of the latter, and of a visit which he paid to them.

"These baths exist in an excavation made on the southern face of the mountains of Baia, about fifty feet above the level of the sea; access being procured to them by means of a pathway cut in the rock. The waves wash the foot of the hill on which they are; and on its summit was formerly situated a palace, communicating with the baths by means of splendid galleries, some arches and columns of which still exist. . . . The interior of the grotto is divided into four compartments, which communicate with each other: light being admitted by orifices which face the sea. In each compartment there are numerous tables of lava, hollowed out so as to contain mattresses on which persons may recline, so as to receive a fresher air after coming out of the baths. In ancient days, statues, indicating the names of the diseases which the baths were supposed to cure, were ranged

around; the only remnants of which at present are empty, mouldering niches.

"The entrance hall is the largest, being about thirty feet in length and fifteen in width, and on its floor is an opening like the mouth of an oven, from which a cloud of hot, moist vapour arises. This is the orifice of a fissure which communicates with the source of the vapour.

"The guide is a miserable-looking little old man. His excessive leanness, his dry and horny skin, and his asthmatic breathing, indicate but too clearly the unwholesome occupation in which he is daily engaged. Indeed his sole employment is to pass through the stifling atmosphere to bring up a bucket of water from the source, in order to amuse the visitors, who plunge eggs into it, which are boiled in five minutes.

"We had scarcely entered, when the guide lit a thick torch of resin to give him light in his descent to the source of the vapour. I had the curiosity to accompany him, chiefly because it afforded me an opportunity of repeating some of the experiments on animal heat which Magendie had a short time previously published.

"The guide and I both threw off our clothes, and he with his torch and I with my thermometer proceeded into the passage, which was about seven feet in height, and less than two and a half feet in width. The temperature was 104° F. at a height from the ground, and only 91° F. close to the surface; thus the heat was either stifling or bearable, according as the head was carried erect or held down. The difference is due to the physical cause, that the cooler layer of air, being the heavier, is always the lower. The warmer and cooler air constitute a double current, from the escape of the former outwards, and the flowing of the latter inwards: so that, if a torch is held near the top of the arch, the flame is directed outwards; and if near the ground, inwards.

"We advanced a few steps. The passage soon changed its direction, and then became sinuous. I proceeded with my body bent downwards, and my head kept as near the ground as possible; whilst the guide, in consequence of his low stature, but more especially from his acquired habits of *incombustibility*, disdained such precautions. After having advanced about 130 feet, we arrived at a point where the passage turned off at almost a right angle. The numerous persons who come here daily to take a vapour bath rarely penetrate as far as this, stopping a few paces within the mouth of the entrance. . . . The thermometer now stood at 109° F. at the top of the arch, and at 98° F. at the bottom. I began to suffer much from the heat, and my pulse rose from seventy to ninety beats in the minute.

"After a halt of a few moments we proceeded: the temperature increased, the passage became narrower, and, instead of the slight inclination which it hitherto presented, it now descended suddenly, so that even the guide himself walked with great difficulty. I continued to follow him, but, no longer able to hold my head up to

prevent the blood from gravitating to it, I knelt on my knees, and holding on with my hands and feet to the projections of the damp surface, I allowed myself to glide backwards. My temporal arteries pulsated strongly; my breathing was difficult, short, hurried, and panting; my body throbbed all over, and my pulse was 120 in the minute: quite exhausted, I stopped every moment, and applied my mouth eagerly to the ground, to breathe the least burning layer of air. The upper current now indicated 118° F., and the lower 113° F. We were enveloped in so dense a vapour that the flame of the torch, which exhaled a fetid smoke, appeared only as a brilliant point in the centre of a luminous ring.

"We still descended, the atmosphere became more and more suffocating; I felt as if my head would burst, and a phosphoric light seemed to play around me: I was scarcely conscious of any sensations. 'At last,' thought I, 'should I want help, could I make myself heard?' I called aloud:—I listened:—but I heard nothing save the noisy breathing of the guide and myself.

"Suddenly the surface became level, and a slight bubbling indicated that we were at the source. There it was: but the vapour was so dense that the guide had to hold his torch close to each object to render it visible.

"As well as I could see, the water spouted up in a twisted stream, through a hole pierced in the bottom of a small basin, and near it was a stone on which the guide knelt to fill his vessel.

"I dragged myself to this spot with my thermometer in my hand, but I confess my strength nearly failed me; the mercury indicated 122° F., and there was no difference between the upper and the lower layers of the vapour. My pulse beat so quickly that I could not count it; I felt that, were I to give way to my sensations, I should fall into a state of asphyxia. The guide plunged my thermometer into the spring, the temperature of the water was 185° F.: at the same time he filled his pitcher at the first basin, the depth of which appeared to me to be about a foot and a half.

"I had now attained my object, and I summoned up all my energies to escape from this *frightful furnace*, which I regretted that I had ever entered. . . . . As soon as I reached the open air I almost fainted, I could scarce walk, I staggered like a drunken man, and my pulse beat 150. Blood, happily for me, burst from my nose, as it flowed I felt relieved, my respiration became easier, and I began to collect my ideas. I was altogether more than a quarter of an hour in the bath, and the guide, who was not in the habit of staying in so long, suffered nearly as much as myself.

"The water which we had obtained from the spring was perfectly clear, limpid, and inodorous; its acid and saline taste resembled that of the Pullna waters, of the purgative properties of which it partakes; it is not gaseous, for if it exhaled carbonic acid we should have been asphyxiated; nor does it leave any deposit on cooling. I had it afterwards analyzed at Paris, when it yielded considerable quantities of the salts of lime, soda, and magnesia.

"During the night, on my return to Naples, my pulse beat 100, I suffered from slight fever, and singing in my ears, and a sort of tingling all over my body. On the following morning I felt only a slight sensation of fatigue, but M. Magendie remarked that my eyes were injected with blood, and this did not disappear for two or three days afterwards."

The author gives also an account of *natural* gaseous baths, enumerating, however, only two,—namely, the well-known *Grotto del Cano* in the neighbourhood of Naples, in which a layer of carbonic acid gas is always present on the surface of the cave; and one close to it in which *ammonia* is present, singularly enough, not, as should be expected, at the *top*, but at the *bottom* of the cave, close to the soil. This Dr. James believes to depend on its being combined with carbonic acid.

After a reference to sea-bathing, the author notices, very concisely, the mineral waters of England, and we were certainly not a little amused with his concluding paragraph on them:—"English customs," writes he, "have in all things a stamp of originality: thus, it is in winter, and not in summer, that mineral waters are resorted to in that country."

The work, in fine, is concluded with a resumé of the principal diseases in which mineral waters are found to be beneficial, and an indication of those suited for the treatment of each is given.

We cannot part from Dr. James without again commending his book most highly, and recommending it in the strongest terms to our readers, as sure to afford them correct information on a subject immediately bearing on the practice of medicine in the present day.

Die geburtshilfliche Praxis, erläutert durch Ergebnisse der II. Gebärklinik zu Wein, und deren stete Vergleichung mit den statistischen Ausweisen der Anstalten zu Paris, Dublin, u.s.w. Von Dr. F. H. ARNETH, Assistent an der II. Gebärklinik zu Wien. Wien: Braumüller. 1851. 8vo. pp. 254.

Practical Midwifery, illustrated by the Experience of the Lying-in Hospital at Vienna, and by a Comparison of it with the statistical Results of the Institutions at Paris, Dublin, &c. By Dr. F. H. ARNETH, Assistant in the Lying-in Hospital at Vienna.

THE lying-in department of the *Allgemeine Krankenhaus*, or Universal Hospital, at Vienna, contains about 400 beds, and

the number of annual deliveries is about 7500. It is divided into two clinics, each under the direction of a professor, an assistant, and a head midwife. In one of these clinics the female pupils are instructed, and in the other the male pupils[a]; Dr. Arneth was assistant to the former. This office usually lasts for two years, but our author held it for three. In the present work he gives a report of all the cases delivered under his care, during the first two years of his connexion with the hospital, namely, from October 15, 1847, to October 15, 1849, within which period 6527 women were confined under his observation.

The first twenty-six pages are occupied with a description of the lying-in hospital, and a minute account of its internal management and economy. This forms a very appropriate and valuable introduction, and well deserves attention from those connected with similar establishments. A few of the rules having reference to the patients may be here noticed. They are very commonly admitted in the eighth month of pregnancy, unless the hospital is much crowded; and they remain in until the tenth day after delivery, or longer, if necessary; then they are permitted to return home, and may or *may not take their children with them.* In the latter case the children are received into that division of the general hospital set apart for foundlings. The "pay-wards" of the hospital possess the following extraordinary privilege, that so long as a woman remains there she is beyond the reach of the law, no matter of what offence she may have been guilty. In each clinic is one chamber, where all the women are brought to bed, and in three hours after delivery they walk back to their ward. The eighth day is the soonest on which the puerperal patients are allowed to sit up; but from the first they get animal food, in the form of a very weak bouillon.

In treating of the different varieties and complications of parturition, the course pursued by Dr. Arneth is, first, to describe briefly the practice of the Vienna Lying-in Hospital, with respect to the particular subject under consideration, and then to append the statistics of it and of other institutions. The authors whose works he most constantly quotes from, as containing the largest amount of statistical information, are Lachapelle and Boivin, of the French; Collins, and M'Clintock and Hardy, of the Irish; and Boër, Klein, and Bartsch, of the German. Besides these, however, the writings of many other accoucheurs are occasionally referred to.

[a] See vol. ix. New Series of this Journal, p. 133.

We hail with much pleasure the appearance of this excellent work ; for the Vienna school of midwifery, though possessing such a magnificent hospital, has contributed but little to obstetric science, if we except the works of Boër and Helm, and the short clinical report of Klein and Professor Bartsch. The volume before us, therefore, is a production long due; and not only does it well sustain the reputation of the school from which it has emanated, but reflects the highest credit upon the industry and the judgment of its author. The habitual observation and unremitting perseverance that must be exercised, in collecting and arranging the data for a book of this kind, involve so much trouble, that few men are willing to encounter the difficulties and the cares of such an undertaking.

As it would be impossible to give a full analysis of Dr. Arneth's report, we propose laying before our readers the practice of the Vienna *Gebärhaus* in those matters where it differs most from our's. These extracts will be sufficient to exhibit the character of the book, and at the same time must possess most interest for general readers. The report, it will be remembered, extends over a period of two years; during which time 127 of the women who had been delivered died, that is, about 1 in 51. The total number of children born was 6608 (there having been 81 twin cases), of whom 224 were born dead ; being a proportion of 1 in $29\frac{1}{2}$[a]. Of the entire number of children, 95 were delivered by the assistance of art, viz. :—4 by the perforator and crotchet, 45 by the forceps, 44 by turning, and 2 by the induction of labour. What strikes us most in these numbers is the great frequency of turning and forceps operations, and the extreme rarity of craniotomy. Here the disparity between Dublin and Vienna practice is very wide. If, however, we compare the average frequency of all these operations, without distinction, at Vienna and at Dublin, this difference almost entirely disappears. Thus, in Dr. Arneth's report, the number of operations to the number of deliveries is as *one* to *sixty-nine ;* and in Dublin, according to the combined statistics of Collins, and M'Clintock and Hardy, the proportion is about *one* in *seventy-three.* Of the 95 children above-mentioned, 62

[a] It is right to mention that Dr. Arneth considered every child as *born alive* whose heart was pulsating at the time of birth. We, on the contrary, have generally reckoned a fœtus *dead-born* in which respiration could not be thoroughly established; and this agrees with the definition of the French Civil Code, and also accords with the English law, so far as it bears upon the point. As the numerical results of a large practice would be very much affected according as one or other of these definitions is adopted, it is of importance that obstetric reporters and writers should define their idea of a "live-born child."

were born alive, and 49 of these survived till the ninth day. Of the mothers of these children *eleven* died.

In the management of natural labour, the practice is essentially the same as that which is followed here. During the act of parturition, the woman is allowed to lie on her back or her side (as with us), the latter being the more common. For overcoming rigidity of the os uteri, that frequent source of delay in first labours, time and the warm bath seem to be the only remedies employed; bleeding, tartar emetic, leeching the os uteri, and belladonna topically applied, having no place in the treatment. Of the effect of this mode of practice we cannot form any exact opinion, as no table of the duration of labour in all the cases is supplied. In two cases of insuperable rigidity of the os uteri, incision was performed. One of these was a case of carcinoma uteri, and in the other the whole vaginal portion of the cervix had been amputated some years before. The former of these women recovered, but the other died on the third day. The ergot of rye seems to have been used in a very small number of cases:

"We used the secale cornutum in only a few cases. We gave it in the form of powder, in doses of five grains every five minutes, to the extent generally of half a drachm. We look upon this medicine as very uncertain in its influence upon the pains. Sometimes its operation was very manifest; often it produced no effect. Once only had I reason to believe that the death of the fœtus was plainly ascribable to the secale."

The forceps, we have stated, was employed in *forty-five* cases. Of these we shall now give a summary: twenty-two of these women were primiparæ: *twenty-eight* times the operation was indicated solely from uterine inertia; *five* times from this, together with slight narrowing of the pelvis; *three* times from contraction of the pelvis alone; *five* times from convulsions; *once* from this cause and hemorrhage; *once* from prolapse of the hand with the head; *once* from prolapse of the funis; and *once* in a breech case. *Thirty-two* were able to leave the hospital on the tenth day (one of these got vesico-vaginal fistula); *seven* women died; the rest recovered slowly. The vectis, or extractor, was never employed. Dr. Arneth's description of the forceps used on all occasions in the Vienna Hospital is as follows: extreme length, fifteen inches; length of blade, eight inches; distance between the tips, two and a half lines. The lock is Smellie's; and in this situation there is a projection, or hook, on the outer side of each blade, to which the middle and index fingers are applied in extracting: in this respect it re-

sembles the forceps of Brünninghausen, of Nægelé, and of Dubois. Some of his remarks on this obstetric instrument are very good; we quote two of them:

"We are so far from pretending our forceps to be the best. We entirely agree with most accoucheurs that, except some few totally unfit instruments, that instrument is the best to which the operator is most accustomed. . . . . Well remembering that the forceps, even in cases that look least dangerous, is always 'an iron hand,' we do not employ it, except with great reason, and in carefully selected cases."

The forceps was never resorted to unless the os uteri was fully dilated, and the head had entered the cavity of the pelvis; so that the *long* forceps (for performing the *high* operation) was not employed. The rules for turning the child are nearly the same as are here observed. The woman was sometimes placed on the back, and sometimes on the side, and one foot only was seized. Either hand was used, but the left was more commonly preferred, as being smaller and more pliant than the right. Mr. Roberton, of Manchester, in a work very recently published, has expressed himself strongly in favour of turning with the left hand; his words are:—"In turning, which of the hands ought to be used? The answer to this is, *that hand which corresponds to the side of the body on which the patient is lying.* In this country she lies on the left side; and the operator should, therefore, use his left hand, because with it only can he operate, and at the same time maintain a regard to the axis of the passage. It is difficult to overrate the importance of this, as long experience has convinced me."[a] To us it appears that, in cases where much opposition is likely to be endured in the operation, the superior strength and muscular power of the *right* hand, generally speaking, should entitle it to a preference. Dr. Arneth records *forty-four* cases of turning, viz.: *thirty-two* times for transverse presentation; *six* for placenta prævia; *three* on account of narrowing of the pelvis; *twice* where both arms had descended with the head; and *once* where a foot descended with the head. Of the forty-three mothers, there having been one twin case where both children were turned, *three* died, viz., the twin case, a patient who had placenta prævia, and one in whom version was resorted to from deformity of the pelvis. Of the children, fourteen were dead-born, and six of the remainder died before the tenth

[a] Essays and Notes on the Physiology and Diseases of Women, and on Midwifery. By John Roberton. 1851.

day. Dr. Arneth seems rather favourable to the practice of turning in cases of slight pelvic distortion, where this has been proved to exist by the history of former labours. He relates two or three instances of its successful performance, but also mentions some, where the child was not only lost, but where enormous difficulty was experienced in delivering it; and even of the three in his report, two had to undergo perforation before the fœtus could be removed. Of the three cases belonging to the report, where this procedure was had recourse to, one perished.

The practice of the hospital in the treatment of prolapse of the funis seems to have been attended with remarkable success, as out of thirty-three examples of this accident, twenty-two children were born alive; and of the dead children, seven were putrid. The particular mode of treatment most frequently adopted in these cases, and with the best effect, was reduction. This was done not by simply pushing the cord above the head with one or two fingers, but the whole loop of funis was taken into the hollow of the hand, and carried fairly above the head, and lodged in the hollow of the child's neck. Dr. Arneth states, that of forty cases collected by him from his own practice, and that of Klein and Bartsch, where this mode of taxis was followed, thirty-eight of the children were born alive, a result that seems almost incredible. He very properly enjoins us not to infer that the child is dead, and consequently to abstain from all attempts at saving it, because, when first called, we may not feel any pulsation in the funis; and he gives four instances where no pulsation was discoverable when he reached the patient's bedside, yet prompt reposition was performed, and the children were preserved, though certainly one of them required four hours' care and exertion before respiration was satisfactorily established.

The practice of the Vienna Hospital, in respect to unavoidable hemorrhage, differs in no essential particular from that pursued here. In cases of partial presentation of the placenta, rupturing the membranes was found sufficient to control the flooding. The diagnosis of these latter cases is sometimes a matter of considerable difficulty. The fact of the membranes being much thicker in the vicinity of the placenta than elsewhere, has supplied Dr. Arneth with a diagnostic to which he is disposed to attach some value. He states that this difference in the feel of the membranes is easily recognizable to the educated finger; and that on many occasions it correctly led him to suspect that the placenta was in an abnormal position, near to the os uteri. He gives *nine* cases of partial and complete

placenta presentation: only *one* died. In *two* cases no active treatment was adopted; in *one* the membranes were punctured; and in *six* the children, three of whom presented with the arm, were turned. *Four* of the children were born alive, but two of these died within a few days afterwards. No notice is taken of artificial extraction of the placenta in cases of this description. He only alludes to three cases of accidental hemorrhage; one of these was in the second stage of labour, and yielded to cold applications; the other two were successfully treated by rupturing the membranes. In common with Rigby and others, Dr. Arneth has had occasion to remark the great frequency of hemorrhagic cases at particular times; and this he attributes to atmospheric and telluric influence.

In the medical treatment of convulsions, bleeding to a small extent, and tartar emetic, are the only remedies employed. *Thirteen* examples of this complication are recorded, of which *four* died, *six* were delivered by the forceps, and the rest by the natural efforts. In one of his cases the woman had forty-five fits; she, nevertheless, recovered, but was for some months afterwards insane.

Of rupture of the uterus, no case, strange to say, occurred during the period embraced by Dr. Arneth's report.

In one of his years there were 243 premature confinements, being in the proportion of one to fourteen of all other labours. These children presented in the following way, viz.:—19 with the feet, 21 with the breech, 2 with the arm, and the rest with the head; 189 children were born alive, and of the whole number 120 were boys. The proportion which the preternatural presentations bore to the whole number of premature births was one to five, thus corroborating the observations that have been made on this point by Dubois, Cazeaux, M'Clintock and Hardy, and others. Dr. Arneth states that syphilis was a very frequent cause of premature labour. In the period of two years he saw ninety-nine women affected with this disease, being nearly *one* in *sixty-six* of all cases. The seventh part of the syphilitic women had not come to the full time; and of their children, one in nine was dead-born.

Dr. Arneth narrates six cases in which the uterine tepid douche, recommended by Kiwisch for the induction of premature labour, was tried; and in all but one it succeeded. The mode in which it is applied is as follows. A basin of tepid water is placed at a height of twelve feet from the floor; from the basin a tube is conducted, the upper half of which is rigid, the lower half flexible. Whilst the woman sits, this is introduced into the vagina, so that the current of water is projected

against the os uteri. This is done usually twice a day, and the number of "sittings" required, before parturition sets in, is very uncertain; twelve or thirteen douches are about the average; but in one patient the second douche provoked labour; in another, eighteen were required; and in a third patient, upwards of thirty were received, without any impression being made. In one case Dr. Arneth thought that the douche had the effect of changing the position of the fœtus in utero.

Chloroform does not seem to have been much in favour, as it was only used in five cases, all instrumental deliveries. One of these women was kept for two hours under its influence.

In cases of retention of the placenta, the general rule was to wait for three hours, unless hemorrhage demanded its removal sooner. The report contains thirty-one cases in which the artificial extraction of the after-birth was practised. In *ten* of these the operation was necessitated from hemorrhage; in *eleven*, from morbid adhesion; in *six*, from these two circumstances combined; and in *four*, from hour-glass contraction of the uterus. *Five* of these women died, and all of them belonged to the cases of morbid adhesion. Dr. Arneth's opinion, as to the danger of this piece of manipulation, is the same as that we have always entertained:

> "This operation is a very dangerous one, and proves especially so in cases of very intimate adhesion. Of these mothers, more than the half became ill, and nearly one-third died. On the other hand, only one-seventh of the mothers were ill where it was performed on account of hemorrhage only."

Hemorrhage, after the expulsion of the placenta, was combated by friction over the uterus, the removal of coagula, and the injection of cold water into the vagina. Ergot does not seem to have been employed, nor the introduction of the hand into the uterine cavity. Three cases of "secondary hemorrhage" are recorded. In one it took place on the fifth day; in one on the sixth; and in one on the eighth day, It is reasonable to suppose that the rule of the hospital, requiring confinement to bed until the eighth day, must have operated very materially in repressing a tendency to secondary flooding, and consequently in diminishing the frequency of this untoward event.

The numerical relation which twin cases bear to all others in this report is as one to eighty, there having occurred *eighty-one* such births. *Four* of the mothers died; rather a high mortality. Dr. Arneth mentions having met with an anatomical deviation, the possibility of which has been strenuously denied

by some urchogists, viz., two females of different sexes, inclosed within *one chorion*, but each having its own proper amnion.

The Cæsarean operation is a subject to which much attention has recently been drawn; it may not be uninteresting, therefore, to state the opinion of Dr. Arneth, which may be considered to represent that of the Vienna school generally. With almost the entire body of British practitioners, he thinks it a measure to the employment of which we are only justified by the absolute impossibility of delivery *per vias naturales*. His reasons for maintaining this rule so much opposed to the present tendency to-day in the east of Germany and in France, are clearly and expressly put forward, and are essentially the same as those which have always governed the observations of Dance Boivin. In corroboration of his views he refers to the statistical researches of Kayser, who has collected and analyzed the results of 552 cases of gastrotomy; of which number 210 proved fatal; and of the children, 65 were dead-born, or perished very soon after birth. In France, M. Cazeaux is, we believe, the only author who has accepted the same conclusions upon this important question. Dr. Arneth's report contains four cases in which the Cæsarean operation was performed immediately after death, and in one the child was saved. He mentions four instances which occurred in the Vienna Hospital, of children received in that manner from other establishments.

Two very uncommon forms of puerperal fever are described, which visited the hospital, carrying off a great number of patients in the autumn of 1845, and in the beginning of the following year. The first of these showed itself by an abscess on the perinæum, close to the fourchette, exhibiting a phagedænic tendency, and rapidly spreading to the vagina, perinæum, and other adjacent parts. It has appeared soon after delivery, and the patient generally sank upon the sixth day of childbed. Some of these patients evinced symptoms of metastasis; and in all of them traces of it were discovered after death. In the other group of cases, the disease manifested itself in the form of erysipelas, beginning at the vulva, and spreading down one or both legs. Many of the women so attacked died, and presented, on *post mortem* examination, the usual marks of uterine phlebitis, though very few of them had made any complaint of uneasiness in the belly. Purulent deposits occasionally took place amongst these patients, and very usually occupied the same situation, namely, the front of the upper arm and the calf of the leg. Two cases of rapid destruction of the eye, from metastatic inflammation, are narrated; both these in one of whom, the complete disorganization of the eye was

effected within two hours from the first symptom of the attack; and in the other the same took place in eight hours.

Cholera made its appearance in Dr. Arneth's division of the hospital in the beginning of June, 1849, and did not disappear until the middle of August, during which time twenty-four patients (ten undelivered) were seized with it; and his experience confirms that of Helm, in the observation, that every woman delivered after an attack of the disease gave birth to a putrid child. Strange to say, although puerperal fever was rife in the wards up to the time when cholera broke out, and immediately after it disappeared, yet during this interval of more than two months, comparatively speaking, hardly a case of it occurred, as if the presence of the new pestilence had for the time being effectually expelled the old and no less dreaded one. This is most remarkable, and bears out the idea that two epidemics can never coexist in a state of intensity. In connexion with this, we may mention the fact, that during the year 1832, when cholera was so fearfully prevalent in this city and country, Dr. Collins' mortality in the Lying-in Hospital amounted to only twelve deaths, being at the extraordinarily low rate of 1 in 186.

Dr. Arneth states, that, with one solitary exception, he never saw a woman die in the puerperal state who did not exhibit, after death, some organic lesion in the genital system or abdomen. In the exceptional case, the patient died quite suddenly, a few days subsequently to confinement; and, after a careful microscopic examination, the cause of this event could only be referred to anemia of the brain.

We must now bring this notice to a conclusion, and sum up our opinion of the work in a few words. So largely have we borrowed from its pages, that no space is left us for criticism. But Dr. Arneth's book is of a kind that does not challenge, or fairly admit of such, his object having been simply to lay facts before us; and this he does in so unostentatious a manner, that, even were we so inclined, we could find little to cavil at. We are free to state, however, that in some statistical details the report is deficient; but this fault does not rest with Dr. Arneth, but rather results from the customs and regulations of the institution where he acquired his experience. In the three great questions, the ages of patients, the duration of their labours, and the number of their pregnancies, the information is very meagre and unsatisfactory. The treatment of some of the complications of labour and of the puerperal state, appears strongly tinged with the medical scepticism, the *laissez faire* doctrines, of the "young physic school" of Vienna. Dr. Ar-

neth in this report has made a valuable and permanent addition to obstetric literature, and has given abundant proof of good judgment and untiring industry ; so that we may justly expect from him a useful and brilliant career, should his zeal and diligence meet with their proper reward.

Eléments de Morphologie Humaine, Physionomie de Relation. Localisation physionomique des plis faciaux représentatifs des différents Actes de Relation ; Physionomie naturelle. Genèse des formes ; Loi d'Ordre universel ; Physionomie anormale. Appréciation des Lois, des Theories, et des Faits, relatifs à la Genèse des Organes ; pour servir à l'Étude des Races. Par J. E. CORNAY (de Rochefort), Docteur en Médecine de la Faculté de Paris, Membre correspondant de la Société des Sciences de Rochefort, de la Société des Sciences naturelles de la Charente-Inférieure, Membre de la Société ethnologique de Paris, etc., etc. Paris : Labè. 1850. 18mo. Three parts, pp. 117, 134, and 95.

To connect the material with the spiritual has been the favourite dream of mankind since the creation ; but, alas ! with how little fruit has the labour been attended ! Where are the results of Plato, and of the other philosophers of Greece ? In how much has science been benefited by their labours, except in the failure of their theories ? Metaphysics now belongs to the domain of the archæologist or the lawyer, or is gone to live with the gnomes of the Harz, or with some dreamy theologians in the universities of "Vaterland." Ever and anon, however, a fit of enthusiasm seizes upon the hoary old sage, and he visits other lands, and startles the world by producing pretty phantasmagoria, which, unfortunately, are still capable of fascinating the mass of the public, there being great license of doctrine allowed to his votaries. A pity that such a noble "science" should decay ! What a field it afforded to the speculative genius, who wished to acquire fame by writing elegantly upon nothing ; and to the scholastic pedants, who always mistake the means for the end. But in place of the "ego," and the "non ego," and such other names for *non*entities, what have we gotten ? Positive science : the science of facts connected by induction, as distinguished from *negative* science or the science of names arrived at by deduction. Since this substitution of things for names, nearly all the phenomena of nature have been observed ; and each day adds a fresh triumph to those already gained by the philosophy of observation. The most intricate

and complex laws, those of organic life, are fast revealing themselves; and a light is rapidly being shed over that mythical field of science called philosophic medicine, to the great discomfort of those who were accustomed to think that a subject was sufficiently examined when they had given it a new name. Alas! all "sympathy" is disappearing from the world; and even the pathological chemist's "extractive matter" is being sacrilegiously examined.

Convinced, therefore, that, unless amongst lawyers and theologians, metaphysical jargon was rapidly disappearing from the world, we took up Dr. Cornay's book, attracted, in a great degree, by the word "Morphologie," but, also, in some measure, we must confess, by the titles of the learned author: for an appendage to a name is, in these reading days, more useful than formerly, and we must confess that we are ourselves sometimes attracted by it, especially when we wish, as Dean Swift said, "to make the acquaintance of a book, as most people do that of a lord: learn his title, and then brag of his acquaintance," in the hope of finding some information of a new kind.

Now it so happened that we opened the volume at page 71, Part I., and read the following passage: "The soul (l'âme, l'archée) is nothing else *than the organic fluids, fluids which give form, which build up the being and which consequently animate.* These fluids exist, according to us, before the organs, and during the act of fecundation; the sperm, which is properly charged with them, disengages and polarizes them in the ovule. Subsequently, there is a development of the embryo at a first point of polarization, which betrays itself by a white speck, which is called the cicatricule, and which is perceptible in the ovule." Here was an important discovery! But what were these extraordinary fluids? Surely the author could not have merely changed the name of some already well-known bodies; he must have investigated the fluids. In page 40, Part II., he gives the resumé of these "investigations." According to him the Supreme Being reveals himself: "1st. In elements, fluid, solid, liquid, and gaseous, simple and indestructible. 2nd. In polarizations and in depolarizations, in progressions and in proportions, in co-existences and coincidences of the fluid, solid, liquid, and gaseous elements. 3rd. In material, vegetable, and animal forms, created and destructible. The formula of the Being is (to be, is, being)." Further on in his chapter entitled "analysis and synthesis of the progressions and the proportions of the fluid, solid, liquid, and gaseous elements," he adds: "The progressions and the proportions of the elements reveal themselves according to species:

1st. *Material*, by the combinations of solid, liquid, and gaseous elements *of qualities and in quantities, determinate, specific and material*, which are produced by means of fluid elements *of qualities, and in quantities determinate and specifically material.* These fluid elements (electrical, calorical, luminous), latent in specific proportions in material species, are named chemical fluids; they are portions of fluid rays (rayons) polarized, centralized in progressions and in proportions of the solid, liquid, and gaseous elements of material bodies (espèces); from whom are derived the portions of waves of non-polarized fluids, which constitute the *vegetable-organic fluids* . . . . . These portions (fractions) of latent rays, in *specific proportions* in vegetable species, are called *vegetable organic fluids*, fluids which are portions of rays polarized, centralized in progressions and in proportions of material bodies, forming vegetable species, whence result the portions of rays of non-polarized fluids, which constitute the *animal organic fluids.*" The vegetable world, therefore, presents the second revelation of the progression, &c., the animal world the third, which he describes in the same language. Finally, he sums up his synthesis in the following words: "The quantities (doses) of fluids (or imponderable fluids in determinate quantities and of determinate qualites), with which the material, vegetable, and animal species are endowed, or the latent fluids, constitute the material, vegetable, and animal souls. These fluids, once separated from the solid, liquid, and gaseous elements, having form, return into the common reservoir of fluids between the worlds, ready to animate other elements about to assume form; they do not remain in the state of centralized souls, fluttering about, as certain persons who abandon themselves to faith believe, but as simple imponderable fluids." Here we have a complete theory of the universe: a *rayon*, polarized and centralized, of Hegel's pantheism. With this theory he explains the growth of vegetables and the formation of animals from a number of atoms imbued with certain proportions of his organic fluids, which are continually polarized and depolarized; the type or form of the molecule depending upon the quantity and the quality of the latent fluids. When the same quantities of these fluids act upon similar atoms, the type remains permanent; and as one group of atoms imbued with life is capable of acting upon and causing a coincidence of similar phenomena in similar atoms, the type is propagated; and as the action of such groups of atoms must evidently be weaker upon differently circumstanced groups, and hence the *coincidence* of similar types,—that is, progression of the same order of atoms does not interfere with the *co-existence*

of other types; in other words, does not affect the simultaneous existence of great numbers of different types. In this way he explains why different globules in the animal body give rise to different organs. He also applies it to the different races of men, as well as to the views of MM. Serres and Isidore Geoffroy-St. Hilaire, Flourens, &c., upon the *formation* and *deformation* of zoomorphous bodies, and in support of his views that these phenomena are regulated by the law of the Supreme Being (that is, matter in its unformed state); and that everything is formed and deformed by polarization and depolarization, by progression and proportion, by co-existence and by coincidence, that is to say, according to the law of universal order. In illustration he gives the histories of several cases of genital malformations, illustrated by the most unintelligible plates we ever saw.

Our readers will, perhaps, exclaim, that the description of M. Cornay's fundamental theory (it is the idea of the whole book) is nonsense, at which judgment we shall not be offended; for, although we have done all we could to understand the object of the book (which was forwarded to us with a special request from the author for a review) and nature of the views intended to be inculcated, we came to the conclusion that it was a dilution of the pantheistic fluid of Hegel, mixed with *in*determinate quantities of the author's own crudities, given in the most unintelligible series of phrases we ever read. His idea, that we could not hope to know anything of the formation of animals or vegetables, &c., until we knew the laws of the condition of existence, simply asserts that the required *preliminary* knowledge is, in fact, the *last* point to which we can hope to arrive. This species of writing cannot be too much deprecated; and it is, therefore, high time that the science of physiology should be purified from such dross, and all should strenuously unite to banish metaphysics from medicine, its last stronghold among the sciences.

For the last century a great number of attempts have been made to found a science of life. Lavater, in his extraordinary work, pointed out the curious relations which subsist between the physiognomy and the passions or feelings. He did not, however, analyze this relation; and, unfortunately, mingled a great deal of vague metaphysical nonsense with his otherwise important observations. Gall, and his illustrator, Spurzheim, next entered upon the task, and the result of their labours has been the foundation of Phrenology, which, with much that is good, contains a vast amount of error, for it is unnecessary to say that the brain is not a collection of little brains, each hav-

ing its own proper territory upon the external surface of the skull. About the same time that Gall announced his opinion upon phrenology, Mesmer commenced making known his experiments upon the action of one living body upon another; unfortunately, however, Mesmer was too much of a charlatan, and the subject was too strange and too imperfectly known to merit the serious attention of philosophers, and the matter became, in consequence, the property of mountebanks. Latterly, however, Flourens has taken up the subject of phrenology, and separated a great deal of the errors of Gall and his followers; and it is to be hoped that, in time, a true science will be founded. What Flourens has done for phrenology, Reichenbach and Gregory are doing for mesmerism; and here, too, we hope that, before many years, the true science of the organic fluids will begin to develope itself. But unless physiologists determine to labour inductively, and, eschewing all metaphysics, cease to give new names to unintelligible phenomena, in order to persuade themselves into a belief that they understand everything, a longer time must elapse before medicine passes from what Auguste Comte would call the theological and metaphysical stage into the positive.

It is for this reason that we have been so severe with M. Cornay's book, for we look upon all such works as obstacles to real progress, although we will do him the justice to say, that there are many excellent ideas throughout his essay, which, if put together in an intelligible form, would possess some value: as, for instance, his examination of the relation between the facial muscles and the character, whether of races or of individuals. In this part he supplies deficiencies which exist in the views of Lavater, who was not an anatomist; and he also shows, in accordance with the views of M. Flourens, that it is rather to that point we should look for the external effects of the mind upon form. In conclusion, we would express a hope, that M. Cornay, and all others intending to write upon such important subjects, would endeavour, if they could not be scientific, to be at least intelligible.

Canstatt's Jahresbericht über die Fortschritte der gesammten Medicin in allen Ländern. Redigirt von Dr. Eisenmann. Erlangen: Ferdinand Enke. 1850.

Canstatt's Annual Report on the Contributions to General Medicine in all Countries. Edited by Dr. Eisenmann.

Handbuch der Pathologie und Therapie, von Dr. C. A. Wunderlich, Professor der Medicin zu Tübingen, &c. Parts III. and IV. Stuttgart: Ebner und Seubert. 1849. 8vo. Vol. I. Die Allgemeine Pathologische Physiologie, p. 243 to p. 608.

Wunderlich's Handbook of Pathology and Therapeutics.

General Pathology, as conducive to the Establishment of rational Principles for the Diagnosis and Treatment of Disease. A Course of Lectures delivered at St. Thomas' Hospital during the Summer Session of 1850. By John Simon, F.R.S., &c. London: Renshaw. 1850. 12mo. pp. 288.

Since the last occasion on which we drew from the ample literary stores of the "Jahresbericht," its distinguished originator and chief editor has passed from the scene of his earthly labours; and, though his name still continues to adorn the titlepage of the great periodical which he founded, the school of Erlangen has had to deplore, in the premature death of Dr. C. Canstatt, a loss which will be no less felt by all who can properly appreciate and esteem that enthusiastic zeal, untiring energy, and complete devotion to the advancement of the science and literature of medicine, which ever characterized the late talented director of the most valuable, extensive, and best-arranged system of reports on the progress of medical science in its several departments, with which we are acquainted in the whole range of professional literature, whether home or foreign. It needs, we think, no apology on our part, when we pause to pay but a passing and brief tribute to the memory of one whose early labours gave promise of a brilliant and eminently useful career; and to whom we owe the conception and execution of a project for publishing, within the compass of one annual work, and in one language, the result of the investigations prosecuted by all the medical schools of the known world, and which, widely separated though their authors often are, frequently exhibit a most remarkable amount of similarity of design, and, when collated and compared, serve, in no few in-

stances, mutually to elucidate each other. The establishment of a such a medium, whereby we can, as it were, take a bird's-eye view of the immensely extensive field which the literature of medicine now embraces, must be looked upon as a real boon to those who are conducting original research ; while it is not less valuable to the enlightened practitioner who aspires to keep himself *au courant* with the advances made in the special department of medicine to the cultivation of which he has devoted himself. To no other source can either have recourse, with such certainty of finding copious and comprehensive reports on the subjects of his favourite study, and treated by such able hands, as to the *Jahresbericht über die Fortschritte der gesammten Medicin in allen Ländern.* Here will he find, collated, compared, analyzed, and reviewed by some of the most eminent writers of Germany, all that a year's labour of many heads, in many lands, has added to the stores of our knowledge.

The volumes for 1850, which are now before us, show no falling off, notwithstanding that the sole editorship has devolved on Dr. Eisenmann, whose name was hitherto associated with that of the lamented Canstatt in conducting the periodical. The able collaborateurs, who on former occasions furnished their valuable reports from the various and distant schools of Germany, have not relaxed their exertions; and we still find the names of Vogel, Albers, Loebel, Von Siebold, Scherer, Hecker, &c., honourably representing the schools of Giessen, Bonn, Vienna, Göttingen, Würtzburg, and Marburg. A mere enumeration of the several subjects treated of in the seven volumes which the "Jahresbericht" for 1850 comprises, may, perhaps, serve to direct the attention of our readers more particularly to this great work, indicate to many sources whence they may derive ample information on the state of our science, and convince all of the industry and energy with which medical literature is now conducted in Germany. Vol. I. is devoted to *Biology*, which is considered under several heads, viz., *Physiological Physics, Anatomy, Histology, Anthropology, &c.;* Vol. II., *General Pathology;* Vol. III., *Local Pathology* (*that of the blood, nervous system, &c*); Vol. IV., *Ætiological Pathology,* (*morphological pathology, acute, chronic, malignant disease, &c*); Vol. V., *General Therapeutics;* while Vols. VI. and VII. are devoted to subjects, which are either wholly unappreciated amongst us, or, at most, can only be considered as in a state of infancy: we allude to *Zoological pathology*, including the veterinary art, and State Medicine (we have no better translation for *Staats-arzneikunde*), embracing general hygiene, scientific investigations into the state of the public health, and

forensic medicine. Under these several heads, not only will there be found a complete bibliographical record of the several general and special works, with copious illustrative extracts, but the whole are passed in review; and, in no few instances, the reader will meet many interesting original observations, interwoven in the form of review or commentary, from the pens of such men as Valentin, Henle, and Vogel, who are unsurpassed in their favourite subjects of special research, and whose dictum must be deservedly regarded as in no small degree authoritative.

In the third volume we are presented with a report on the pathology of the blood, by Dr. Julius Vogel, from which we purpose to make some extracts. The relative proportions and absolute quantities of the several constituents of this fluid have been the subject of repeated investigation by numerous pathological chemists, since the appearance of the work of MM. Becquerel and Rodier, the latest complete treatise; and not a little discrepancy is to be observed in the results obtained by the several analysts, as also by the several methods employed. With a view to explain these differences, Hinterberger has undertaken some investigations, and, by the repetition of the various processes hitherto employed, has arrived at different results. Thus, with regard to *fibrin*, he has found that a considerably smaller quantity is obtained by the process of whipping, than by washing and pressure of the blood-cake (coagulum). The figures in three cases given present remarkable differences, as may be seen from the following table, the first column showing the quantity obtained by whipping, and the second that by washing and pressure:

Case 1,	3·19 . . .	4·32	Difference,	1·13
„ 2,	2·35 . . .	2·82	„	0·47
„ 3,	0·97 . . .	1·04	„	0·07

The explanation offered by Hinterberger is, that by whipping, a considerable quantity of the fibrin is converted into very fine flakes which are subsequently carried off in the process of washing; while in the second method, that of washing and pressing the coagulum, the insoluble parts of the blood-corpuscles are included, and the weight of the whole becomes thus increased. Again, with regard to albumen and the other elements of the blood, no less discrepancy exists in the results arrived at by different chemists and different processes, so high figures as 54·32!! 32·46!! expressing the differences in two of Hinterberger's analyses; while those of Höfle, Scherer, Zimmerman, and Becquerel and Rodier, do not, by any means, ex-

hibit a much more satisfactory condition of this department of pathological chemistry. With regard to the next most important constituent of the blood, viz., albumen, we may take occasion here to allude to the interesting application of the polariscope to its detection and quantitative analysis by M. Becquerel.

The discovery of the molecular rotatory power of albumen, as it exists in the serum of the blood and the white of egg, is due to M. Biôt (to whom we are also indebted for a knowledge of the similar physical properties possessed by sugar), who first pointed out the deviation to the left in the rays of polarized light caused by this substance. M. Bouchardat subsequently made experiments to determine, by the same means, the amount of this deviation in the case of albuminous fluids. But, at the point where M. Becquerel has taken up the investigation, the following questions remained to be solved: Was the deviation caused by the white of egg due to the albumen which it contains, or to the sugar which has been stated to have been discovered therein? And what are the conditions under which the serum of the blood can be investigated by polarized light, as M. Bouchardat had pointed out that, in the majority of cases, it was not observable? While a not less important requirement was, the construction of an instrument sufficiently simple and portable, and which could be used with facility in the wards of an hospital. We shall see how far M. Becquerel has arrived towards completing the investigation of these important points, and furnishing us with a polariscope which will answer the purposes of pathological inquiry. Without delaying to consider that of M. Biôt or the modification of it by M. Mitscherlitz, we shall pass at once to the more convenient form of instrument imagined by M. Edmond Becquerel, the author's brother, and manufactured by M. Soleil. It will be found to be an instrument very easy of adjustment, and capable of being employed with facility; comprising the direct measurement of the rotation by the process of M. Mitscherlitz, and the use of a sufficiently intense artificial light to study the deviations in coloured fluids.

The essential parts of the apparatus consist of a polarizing and an analyzing prism, inserted into the opposite ends of a tube which varies in length from six to ten inches, according to the more or less deep colour of the liquid whose properties are to be studied. The prisms employed are constructed after the plan of Nichol, so that only a single image is found in the field of vision, which is finally transmitted to the eye, enlarged by a lens placed before the analyzer. A graduated circle, eight inches in diameter, accurately divided, and furnished with a vernier and

index, is attached to the instrument at a convenient distance from the eye-glass. The light used by M. Becquerel is that given by the *essential oil of chiste;* the lamp being enclosed in a tin case furnished with a circular aperture, in front of which is a condensing lens.

The manipulation of the *albuminometer*, which is the name given to the apparatus by our author, is sufficiently simple. Having directed the polarizer towards the source of light, and for coloured liquids placed a slip of red glass in the trajet of the luminous rays, the first step is to determine the 0 of the instrument on the circle,—which is effected by turning the index, and bringing the 0 of the vernier and that of the circle to coincide accurately, then examining the luminous ray, and revolving the analyzer until either complete extinction is effected, or the minimum of light is obtained. It would, of course, answer precisely the same purposes if the maximum of illumination was taken as the standard. This done, the analyzer is screwed home until it and the index come to form one system of parts, capable of moving together. If it be desired now to examine the rotatory power of a given liquid, a glass tube is filled with it, and placed in the apparatus. If it contains albumen, we shall now observe, on regarding the analyzer, that the luminous ray has re-appeared; and, in order to produce the extinction of it again, it will be necessary to turn the analyzer to the left. This movement is communicated to the index at the same time; and when the ray becomes invisible, or reaches the minimum, we can easily read off the exact number of degrees and seconds through which the index has passed, which is the measure of the rotation produced.

In conducting observations with the polariscope, M. Becquerel advises us to exclude all external light as much as possible, and even to remain for a little time in the dark before actually commencing to experiment; for which purpose he recommends a veil of black stuff for covering the head. These precautions may, no doubt, be necessary, if very delicate researches are being made; but, having repeatedly examined different objects by polarized light, we can venture to say that very satisfactory results can be obtained without this complete isolation of the polarized beams. Many difficulties present themselves in the examination of fluids: thus, according to our author, of ten specimens of blood-serum examined without previous preparation, eight will be found almost certainly totally unfit for the purpose, and will, in fact, not transmit any luminous rays. This is due, in the majority of cases, to the presence of blood disks, which are always present in small quantities,

and cannot be removed by simple filtration, but by the addition of a small quantity of sulphate of soda (about one grain to the 100), this impurity, as well as that caused by albuminous fragments, &c., may be arrested on the filter; and the albumen, thus purified, will not be found in the least altered in its rotatory properties. In those instances in which the serum is opalescent, or contains biliary colouring matter, we must despair of attaining any results by the polariscope.

When, therefore, a suitable specimen of serum of the blood is examined by the albuminometer, it is found that a deviation takes place, which is constant to the left side, and which varies between five and ten degrees. What is the cause of this deflection? It is not the presence of sugar, according to M. Becquerel; as, in 150 analyses made specially with a view to determine this question, he was unable to obtain a trace of this substance. It is not the extractive matter, nor the salts, seeing that they have no such action of themselves. But albumen obtained pure by the process of M. Würtz gave like results, and the amount of deviation is directly proportionate to the quantity of albumen, as estimated by chemical analysis. In fifty cases of patients affected with different diseases, this excellent analyst has examined the serum of the blood, both chemically and with the polariscope: the results have been—

1st,—That the deviations were constantly proportionate to the quantity of albumen.

2nd,—The deviations varied within the following limits:—The weakest was 4° 30′; the strongest, 9° 00′; the proportion of isolated pure albumen varied from 48·60gr. to 94·41gr.; the results calculated by the formula of M. Biôt[a] $(a) = \frac{a}{lde}$, gave for the molecular rotatory power, in the fifty cases of serum, the mean of 27° 36′.

From these data, the quantity of albumen indicated by each minute and degree is easily deduced.

The mean of fifty analyses of the blood serum gives as a result:—That each minute corresponds to 0·180 grains of pure albumen, and each degree corresponds to 10·800 grains.

From this a table has been constructed, showing, at a glance, the absolute quantity of albumen in any given serum whose molecular rotatory power is known. In ten cases of liquids obtained from effusions, cysts, &c., and in five of albuminous urine, examination by the polariscope was eminently satisfactory; in

[a] a, the intensity of deviation from red glass; l, length of tube; e, ponderable proportion of active substance in solution; d, density of solution.

the latter instance, the mean rotatory power was 27° 41′, and directly proportionate to the quantity of albumen.

We shall next proceed to consider the application of these facts which M. Becquerel has made to the study of the blood under healthy and diseased conditions:

a. Physiological Condition.—The mean quantity of albumen was found to be 80 per 1000; the range of variation between 75 and 85; deflections by the albuminometer, 7 to 8. These proportions may be modified by a weakened constitution, bad nourishment, &c.

b. Pathological State.—Under certain diseased influences, the quantity of albumen will be found either to remain within normal limits, or to undergo increase or diminution.

1. The quantity of the albumen of the blood remains within normal limits in slight affections, or those of short duration; those in which the appetite is preserved; *inflammations, at their commencement, the first or second day;* chronic maladies, in which the health is preserved.

2. It is much more difficult to distinguish those cases in which the quantity of albumen increases: they are exceptional and rare.

3. The quantity of albumen diminishes pretty often, viz., in cases of insufficient nourishment, chronic affections with impaired health, prolonged regimen, maladies in which losses are sustained by hemorrhage, dropsy, maladies of the brain, *acute inflammations prolonged*, pneumonia, &c.

The results of a very extensive series of investigations into the variations in quantity of albumen in the blood-serum in several diseases, are next detailed. The particulars cannot fail to be interesting to the chemico-pathological inquirer, especially as there is but little doubt that the paramount importance hitherto attached to *fibrine*, has, to a certain extent, diverted the attention of many observers from the part played by albumen in vital chemico-physics; and which, as we shall presently have occasion to show, there is now much reason to believe is at least, fully as much connected with healthy and diseased conditions of the blood, as any other of its constituent elements. For the details of these observations, however, we must refer those who may wish to prosecute the investigation, to the original paper of M. Becquerel; we must content ourselves at present with presenting to our readers a summary of the facts which this able inquirer has arrived at.

The following conclusions will be found to contain, in a condensed form, all that has been established with regard to deviations from the normal standard, as ascertained by the po-

lariscope, and, in a great number of cases, owing to M. Becquerel's indefatigable spirit of research, corrected by direct chemical analyses:

1. The albumen in solution in the blood-serum and in a great number of organic liquids, causes a deviation to the left in the plane of polarization of a luminous ray.

2. The intensity of this deviation is proportionate to the quantity of albumen contained in these liquids, and can be employed as a very exact measure thereof.

3. The molecular rotatory power of albumen, in liquids which have not been altered by chemical re-agents capable of changing its condition, may be estimated from numerous experiments, and from the application of the formula proposed by M. Biôt, at 27° 36′; each minute corresponding to 0·180 grains, and each degree to 10·800 grains albumen. The approximation being, as we have said, within from four to five minutes; and consequently the source of error about $\frac{1}{100}$, which is much less than that by chemical analysis.

4. In the physiological state, the serum of the blood contains a quantity of albumen, which oscillates between 75 and 85 per 1000, the mean being 80. These results correspond to deviations to the left oscillating between seven and eight degrees, the mean being 7° 30′.

5. In the pathological state, the quantity of albumen oscillates within normal limits in the following diseases:—maladies of light degree or short duration; affections in which alimentation is continued; maladies of a certain gravity, at their commencement; a certain number of chronic affections in which the system continues in a satisfactory condition.

6. The quantity of albumen in the blood is *augmented sometimes, but very rarely.* These cases are exceptional, and, as far as is known at present, cannot be referred to any general principle.

7. The quantity of albumen of the blood *diminishes frequently;* thus under the following conditions:—insufficient alimentation; chronic debilitating maladies; affections in which the amount of food is restricted for a prolonged period; those in which evacuations of blood take place; losses of liquids, or dropsies; inflammations of a certain gravity, and especially pneumonia, &c., &c.

If we examine certain groups of maladies we obtain for results,

8. In simple continued fever, the albumen remains within natural limits.

9. In plethora it is sometimes normal, sometimes notably diminished in quantity.

10. In erysipelas of the face, with fever, the albumen diminishes a little.

11. In pneumonia, the quantity of albumen almost normal for the first and second days, diminishes afterwards, and finally in considerable quantities[a].

12. In acute pleurisy, and bronchitis, the same modifications as in pneumonia are produced, but in a less degree.

13. In other inflammations, it is in general the intensity and gravity of the disease, the strictness of the regimen, the date from the commencement, which regulate the diminution of the albumen.

14. In pulmonary emphysema, the albumen diminishes when attacks of suffocation and dyspnœa supervene.

15. In diseases of the heart, the albumen varies but little until dropsy appears, when it undergoes diminution, and often in considerable quantity.

16. In Bright's disease, it is the production of the dropsy, and not the loss of albumen in the urine, which determines the diminution of the quantity of albumen in the blood.

17. In hemorrhage, or softening of the brain, some facts, though as yet hardly sufficient have been collected, warrant us in believing that the quantity of albumen becomes diminished.

18. The direct measure of the rotation permits us to appreciate, with great exactitude, the proportions of albumen contained in all pathological liquids.

19. In more than 150 bleedings, and fifty pathological fluids, M. Becquerel never met circumstances which have in any way modified the effects of polarization.

The question as to how far the polariscope is available for the estimation of albumen in the urine, is one of no little interest. M. Becquerel states that the quantity present must be of a certain amount to render the deviation appreciable. In the following cases, it will be observed the quantities of albumen were not very large; indeed the author thinks that it is generally much less than appears to be the case on the application of nitric acid or heat. In the instances he has quoted, he found that, by these means, the urine almost became a condensed mass. The deviations were 0° 32′, 0° 20′, 0° 32′, 0° 17′, and 0° 25′, cor-

[a] At the date of publication M. Becquerel was engaged, with M. Rodier, in prosecuting investigations on this highly interesting and important subject.

responding to 5·76, 3·60, 5·76, 3·06, and 4·50. In examining the urine by the albuminometer, it will be necessary to filter, and use all possible precautions.

The mass of valuable information placed at our disposal by Dr. Becquerel's investigations, must, unquestionably, be regarded as a most important contribution to scientific pathology, and should prove a stimulus to other observers to take up this interesting field of research.

Within late years more than one pathologist of note has advanced arguments which would tend to modify our views of the comparative physiological, as well as pathological importance of the two most highly organized elements of the blood, viz., albumen and fibrine; and we find, in perusing his work, that Mr. Simon has become an advocate of the opinions of Zimmerman, who considers that the claims of fibrine to be ranked as the highest condition which the nutritive elements can assume before being actually submitted to morphic laws, and undergoing transformation into special tissue, are by no means as well founded as has been generally admitted. In the opinion of this observer, the source of this element is to be sought for either in the decay of the blood itself, or in the waste of the tissues. Data furnished by previous investigators, and which must be looked on as unimpeachable, inasmuch as they were arrived at by advocates of the opposite opinion, would seem certainly to lend considerable weight to the more recently proposed theory. Thus, for instance, MM. Andral and Gavarret have stated, as the result of their investigations, that those conditions which appear to favour the increase of the blood-corpuscles tend to diminish the quantity of fibrine, as improvement in the breed of animals. Again, fibrine is undiminished by bleeding: Andral has found it to amount to 10·00 at a fourth bleeding; Scherer, as high as 12·7 at a third venesection in a case of pneumonia; and in Dr. Franz Simon's investigations into the blood of diseased horses, many of them half-starved, he obtained 11 to 12 per 1000, 4 being the average. We know further that the blood of the fœtus contains little fibrine, the egg none, the chyme none, while there is less in the blood of the carnivora than in that of the herbivora. These arguments, which are judiciously brought together, and ably urged by Mr. Simon, warrant us, in his opinion, in regarding this constituent of the blood as an excrementitious product, derived from the waste of the tissues, and in process of elimination from the system; and "that in acute inflammatory diseases a super-fibrination of the blood is to be looked on as a consequence of these diseases, not as their cause, and not as a primary affection." The results arrived at by so

many different pathologists of eminence cannot fail to produce in all candid minds considerable doubts of the correctness of the older doctrines with regard to the all-important office awarded to fibrine; but further observations are still wanted, especially as to the constitution of and part played by the exudation plasma, blastema, or coagulable lymph, in the inflammatory process, before we finally assign to it the low position of an excrementitious product. Comparing M. Becquerel's results with those of Andral, as regards pneumonia, perhaps we may say that this latter view receives confirmation: thus it would not be unreasonable to suppose that, if albumen be the highest and most readily assimilable element, it should undergo diminution in quantity, owing to the increased disintegration and molecular waste of tissue which, in accordance with the views of Zimmerman, would be estimated by the increase in the quantity of fibrine, a fact ascertained beyond all doubt, whatever be the interpretation put upon it.

As one of the most important results of the increase of fibrine in the blood in inflammatory conditions, Mr. Simon considers its tendency to accumulate and be deposited in certain situations within the vascular system; and here again, whether deservedly or not, we find views are beginning to gain ground which differ widely from those that have hitherto reigned undisputed. Our author "believes, from a variety of reasons, that it is almost certain the lining membrane of the vascular system is nourished directly from the circulating fluid with which it is in contact;" and, further, "that its morbid changes depend, not on any inflammatory condition of the *vasa vasorum*, but on those humoral changes, those varieties in the qualities of the blood, by which it is more immediately and certainly affected than any tissue in the body." He thus thinks that we have *primâ facie* evidence that endocardial deposits cannot be of inflammatory origin, and, with some show of reason, asks "Why, if inflammatory, should they evince so decided a preference for the *left* side of the heart?" "We know," he says, "that pericarditis pays no respect to the grooves and septum of the heart." The explanation offered is, that fibrinous deposits take place from the overcharged solution (the blood), the valves encrusting themselves with fibrine, just as a stick in certain streams coats itself with a calcareous envelope; their more frequent presence on the left side of the heart being accounted for by reference to the peculiarities of its contents, the new-made arterial blood. The following extracts and observations are worthy of attention:

"I have carried a single thread, by means of a very fine needle, transversely through the artery and vein of a dog, leaving it there so that it might cut the stream; and I have done this repeatedly, sometimes in the femoral vessels, sometimes with the carotid and jugular, sometimes with the aorta and cava. I have suffered the thread to remain during a period of from twelve to twenty-four hours. My experiments have given me as a uniform result, that the arterial blood with the utmost readiness deposits its fibrin on the thread; the venous blood with the utmost reluctancy. And in most of my experiments, the thread, where it traversed the canal of the artery, presented a very considerable vegetation on its surface (exactly like those we are talking of on the valves of the heart); a vegetation sometimes as large as a grain of wheat; always of a pyramidal shape, with its apex down-stream, and its base attached to the thread. In the artery, one might say that the thread whipped the blood, just as one whips blood in a basin to get the fibrin out of it; but with this trifling difference, that, instead of the rod beating the fluid, the fluid ran over the rod and precipitated its fibrin there. In the vein, the thread seemed to operate no way but obstructively; never coating itself with fibrin, but sometimes delaying or stopping the circulation with a voluminous black clot, chiefly collected on that side of the thread remotest from the heart. Accordingly, the general statement and rationale of the matter appear to be as follows: the disease in which these deposits are so frequent is one of intense overfibrination of the blood, and one in which almost certainly there are other conditions, besides *quantity*, making the fibrin easy of precipitation; the left side of the heart has preference, because it is the arterial side, and because arterial blood, as we have seen, readily parts with its fibrin; the valves, and particularly their streamward surfaces, are chosen for the deposit, because their position exposes them chiefly to the friction of the current; so that the whole curious selection of site for the deposit resolves itself into the concurrence of two conditions, which are fulfilled in that one spot of the vascular system, namely, the greatest chemical tendency to the deposition of fibrin, with the greatest mechanical facilities for its entanglement."

"Many people bleed locally, or even generally, when they hear an endocardial murmur arising in the course of rheumatic fever. In their eyes, the new disease is endocarditis; and everything ending in *-itis* is thought, in at least a majority of instances, to be benefited by bleeding. Therefore, gentlemen, do not be in a hurry to call it endocarditis; and, as for bleeding, all that I would venture to say (for of course the treatment of this physician's disease does not fall within my province) is, to assure you of the pathological fact, that you may bleed a patient to death without altering (except probably to increase) the proportion of fibrin in his blood."

These experiments and observations will, no doubt, be regarded as highly ingenious and interesting, but in our mind they are by no means to be considered as warranting the con-

clusions drawn from them by our author, as to the nature of endocardial deposits. In the first place, it is but very little consistent with the present position of histological knowledge, to believe that a tissue such as the lining membrane of the vascular system, into which vessels cannot be traced, must be developed by direct attraction of nutrient matter from the circulating current which bathes it. The *epithelial* surface of this serous membrane is precisely of the same origin as that of all the lining membranes of the great serous cavities, and is consequently developed by cells thrown up in successive layers to its free surface from the basement structure. And as these membranes manifest, under the inflammatory process, phenomena exactly similar to those of endocarditis or aortitis, and exhibit coatings of lymph and false membrane, there is no reason, in the case of the endocardium, to have recourse to an explanation which would not admit of the remotest application to membranes perfectly analogous in histological relations, as well normal as pathological. We freely confess that a difficulty, and one of no small degree, exists with regard to the solution of the question propounded by Mr. Simon, viz., why should such a predilection for one side of the heart, more than the other, be shown by the inflammatory process? As far as we are aware, no sufficiently satisfactory answer has yet been elicited, which would embrace in its explanation the more frequent occurrence of lesion in the arterial than in the pulmonic portion of the circulatory apparatus, as relates to both the cavities of the heart itself, and the vessels springing therefrom. But though this, as well as other departments of ætiology, present problems, the solution of which has not yet been arrived at, it is much more becoming the scientific pathologist to candidly admit the difficulties than to adopt untenable theories[a].

Amongst the other topics treated by Mr. Simon in the section devoted to the consideration of the blood in disease, are those of poisoning of this fluid by matters introduced from without, and contamination by products evolved under certain conditions, within the system itself; by the action of the latter on the circulating current, our author, in common with many other pathologists, would explain the so-called *metastasis of pus*, and *the propagation of cancer* or its secondary deposit in situations anatomically distant from the site of the original lesion. To those acquainted with the structure of the capillary vessels, as revealed by the aid of the microscope, it is almost needless to

[a] That the greater tendency to disease in the left than in the right side of the heart is much over-rated, has been very decidedly asserted by Dr. Todd, of London, in the fifth volume of our present series, page 1.

point out the very great looseness of language, and careless, as well as erroneous forms of expression, still in use by many, whose works are looked up to as standard authorities in various departments of medicine. Thus, we hear of *exhalation* of blood from the capillaries, absorption of pus and cancer-cells, &c.; terms which, to say the least, involve histological absurdities, as we have the most demonstrative evidence to prove that no apertures exist in the walls of the capillaries, which would allow of the passing out of the blood on the one hand, or, on the other, the entrance of a body even very much less in diameter than the pus-cell or the cancer-cell. It is established beyond possibility of doubt, that the only elements of the blood which, *without rupture of the capillary walls*, can pass from this fluid, are those which are in a perfectly fluid homogeneous condition, and which together constitute the plasma or liquor sanguinis; and that in all cases where the red or white corpuscles are found in the intravascular spaces, or on the surface of mucous membranes, or elsewhere, an actual solution of continuity of some minute vessel has taken place.

In addition, it is equally well known that, though an absorbent power be possessed by the capillaries, they cannot take up any element, normal or pathological, which presents distinct morphic properties; and that, consequently, it is only the fluid portions of tissues that can enter the current of the blood. It is time that all who enter the field of scientific medical literature should be possessed of this most requisite portion of elementary knowledge. We do not, however, wish it to be understood that these strictures are applicable to Mr. Simon. Though such errors are not to be found in his work, we thought the occasion a fitting one to introduce a few remarks; as we could point to some well-known authors, whose dicta are very widely received, who have fallen into these egregious errors.

The explanation of these questions of the propagation of pus and cancer, offered by Mr. Simon, we do not think by any means satisfactory. Abundant proof will be found in this, as well as other sections of his book, to show that he considers cancer as an essentially systemic or general disease; and yet, to account for the transmission of cancer germs and the secondary appearance of the disease in parts remote from the seat of its original deposit, he has recourse to the explanation, that, by rupture of a vein or capillary vessel in contact with the tumour, some of the cells are shed into the blood stream, and thus conveyed in its current until they again meet with a capillary network, where, owing to their greater size when compared with that of those minute vessels, they are arrested, become impacted, and give rise to a

coagulation of blood, or even rupture of the capillaries, and consequent extravasation into the parenchyma of the surrounding organ; where they now originate a process of development, which terminates in the formation of a product similar to that from which the cells were originally derived. This explanation is applied to the case of secondary purulent deposits also. It is needless to inform our readers that the development of this theory is not due to the author[a]: it has received the sanction of Langenbeck, Hasse, and others of the German school; in fact, it is to the experiments of the first-named observer we must look for anything like confirmation of these views. With the object of determining the manner of the production of these secondary cancerous formations, Langenbeck injected the fluid matter of a recently removed cancerous growth into the veins of a dog; the animal was subsequently attacked with dyspnœa, and on being killed, cancerous masses were found in the lungs. Thus, then, it is attempted to explain the occurrence of secondary formations in particular organs, by the entrance of matter from the primary seat of disease into the capillaries in its neighbourhood, which is carried by the veins to the next capillary plexus: a portion of matter entering a radicle of the systemic veins thus determining deposit in the lung, while, if it enter a tributary of the vena porta, the secondary affection will be found in the liver.

That such a coincidence takes place in very numerous instances, cannot be denied; but several objections may be raised against the adoption of this explanation for all cases. Thus Langenbeck's experiment, performed in the hands of Vogel, completely failed. Again, we cannot allow that the rupture of a capillary would be necessarily, or even with any degree of likelihood, followed by the *entrance* of any matter; its own contractility called immediately into play, as well as the coagulation of the effused blood, would rather have the effect of blocking up the orifice and preventing the ingress of any extraneous matter. In reference to this question, Vogel says: "Independently of any laceration of the vessels, the *fluid* portion of the ichorous discharge may enter the blood by endosmosis, and induce changes in it in a manner not at present understood." A similar remark may be made with re-

[a] There is one feature in the entire work which we think not only detracts from its value, but is also a most injudicious omission; we allude to the scanty list of references. On the whole, the author will be found to have given a tolerably fair and complete account of the present state of pathological science, but in only a very few instances has he told the reader whence peculiar opinions were derived.

gard to pus; and indeed a brief consideration will show that the pathological nisus, which in any given case of cancerous diathesis determines deposit in any one particular locality, must surely be allowed to be competent to produce similar results in other tissues, textures, and organs. Again, it may be urged that the cancer-cell must be looked on as the final result of the series of actions brought into play in this kind of growth; and it remains to be shown whether it is capable of setting a new order of operations in action. It is in the blastema, undoubtedly, that inexplicable power of determining particular kinds of cell-growth resides; and as it can pass from the capillary walls at all points with equal facility, any explanation of the manner of formation of secondary deposits must embrace the consideration of that local attractive power which is undoubtedly evinced by the particular tissue which is to become the seat of heterogeneous deposits.

Amongst the diseased conditions of the blood which have lately attracted much interest, is that of an increase in the quantity of one of its corpuscular elements. In the year 1845, Bennett and Virchow were first directed to the study of this affection by cases which fell under their notice almost simultaneously; the former observer having, in March of that year, examined the body of a man whose case was subsequently published under the title, "Hypertrophy of Spleen and Liver, in which Death took place from Suppuration of the Blood." Virchow more early recognised the true nature of the disease, though his case did not occur till August, 1845; but he then described it under the term "Leukhemia," for which Bennett now proposes to substitute that of "Leucocythemia" (λευκος, white, κυτος, cell, αἷμα, blood), a name which, as he says, accurately expresses a pathological fact, and involves no theory. In two laborious articles in the January and April Numbers of the Edinburgh Monthly Journal for the current year, Bennett has collected all the cases hitherto observed, viz., those by Virchow, by Quain and Parkes of London, by Heslop of Birmingham, and by several other British and foreign pathologists, including himself.

The essential phenomenon of the disease appears to consist in the superabundant development of the white corpuscles of the blood; a condition which, in a large number of instances, has been observed to be accompanied by enlargement of the spleen and liver, and in others by increased size of the lymphatic glands. In numerous instances the affection would appear to admit of easy recognition during life, by the examination of a

small drop of blood taken from the patient's finger with the point of a needle, and placed in the field of the microscope, when the number and size of the colourless corpuscles will be readily seen to exceed the normal standard. We can hardly state that the precise pathological relations of this condition of the blood and the affections of the glandular system, have been yet fully worked out. In very many cases a tendency to hemorrhage, in the form of hemoptysis, bleeding from the gums, with purpuric spots and diarrhœa, has been noticed. We anxiously await the publication of the third part of Professor Bennett's paper, and we certainly indulge hopes that this will be found to be another of the cases in which the microscope lends invaluable aid to the formation of accurate diagnosis during life, at the same time that the indications which it furnishes for an enlightened system of therapeutics are not less important.

To those anxious to prosecute the subject of the pathological condition of the blood, and to follow out the varied observations which have been recently made on its several states in disease, we would beg to indicate the reports in Canstatt's Jahresbericht, as a source whence they may depend on deriving the most abundant and satisfactory information. Our present limits preclude us from entering on a more extended consideration of this highly interesting and important topic, one, likewise, which, though it has been long regarded as belonging to the domain of abstract science, we are beginning daily to see the practical application of more and more. To all who believe in the progress and gradual evolution of medicine in common with other departments of science, it would be hardly necessary to point out how much injury professional knowledge sustains in its onward move by the constant rigid application of an unworthy spirit of cui-bonoism. It is time that the unfounded distinctions between the *practical* and the *scientific* man should cease: there is no ground for such distinction. The practitioner best suited to undertake the treatment of disease is he who brings to his aid all that the advance of his science furnishes him with, whether in general principles of diagnosis, or improved therapeutics. It is to pathology especially, and to the patient and diligent practice of *all* the methods of research of which we are now in possession, that we must look for immediate and important advances in scientific medicine. This department has in itself become so extensive, that in the more eminent schools and hospitals it is now cultivated by special observers. The field is so large that in the system of the division of labour, the chemist and the

microscopist find each ample scope for his abilities and exertions. But for practical purposes, and the due conveyance of instruction in the elements of this important department of medical science, the establishment of one chair at least has been deemed requisite in most of the schools of Europe, while, in several instances, an addition has been made to the medical staff of hospitals intended for educational purposes; and in the appointment of a distinct officer, to take charge of the pathological department, and undertake its teaching, will be found the recognition of a practical necessity. Indeed, when we consider the absorbing duties of the clinical teacher, we at once see how utterly impossible it is for him to conduct morbid anatomical examinations, or chemical and microscopical investigations, with sufficient care and accuracy. We might adduce the example of the Royal Infirmary of Edinburgh, and show from its working, and the highly valuable contributions to pathology which have been made by the present pathologist and his predecessor, what might be anticipated from an extended system of such investigations by separate observers attached to all our metropolitan hospitals. In Ireland we have as yet no chair of general or special pathology: we have produced as yet no special cultivators of this department of science: none of our hospitals possesses a pathologist!!

At present we can do no more than allude to the Handbook of Pathology, by Professor Wunderlich: it will be found to contain a faithful representation of the present condition of the science; the elementary portions of the work, devoted to a consideration of the physical and chemical laws which are brought into operation in the various processes of disease, are in particular well worthy of perusal. We shall, however, return at a future time to a more extended consideration of the subject of general and special pathology.

God in Disease; or, the Manifestation of Design in Morbid Phenomena. By JAMES F. DUNCAN, M. D. London: Nisbett. 1851. Foolscap 8vo., pp. 224.

THE study of medicine has, by superficial thinkers, been very frequently stigmatized as tending to infidelity; yet by far the greater number of those books which have been written with the view of proving the existence of an Almighty power from his works, are the production of members of our profession. A very manifest illustration of design, hitherto strangely over-

looked, has been happily chosen by Dr. Duncan for explanation; and we have been much gratified at the appearance of such a volume from the Dublin school. Though at first rather prejudiced against this book from its title, the first part of which we cannot help regarding as scarcely sufficiently reverential, we received both instruction and pleasure from a perusal of its contents. The subject is well worked out, and truthfully illustrated by practical facts, which are laid before the reader in a simple and unaffected style, which cannot be too much admired in the popular work of a professional author. As our limited space does not permit us either to analyze the book, or to extract any portion of its contents, we must content ourselves with stating, that its publication reflects honour on both the head and the heart of the author.

Om Höftleden och Ledbrosken uti anatomiskt, pathologiskt och chirurgiskt hänseende, jemte en kritisk Öfversigt öfver några bland Inflammations-lärans vigtigaste Punkter. Afhandling af Carl Santesson, M.D., Chirurgiæ Magister, Prosector vid Carolinska Med. Chirurgiska Institutet. (Med sex Plancher.) Stockholm: Norstedt & Söner. 1849. 8vo., pp. 272.

A Treatise on the Hip-joint and Articular Cartilages, with reference to their anatomical, pathological, and surgical Relations, together with a Critical Review of some of the most important Points of the Theory of Inflammation. By Charles Santesson, M. D., Master of Surgery, Demonstrator of Anatomy at the Royal Carolinean Medico-Chirurgical Institution of Stockholm[a].

In reviewing Dr. Santesson's work on diseases of the hip-joint, in our last Number, we stated our intention of returning to the consideration of the volume; and the importance of the subject induces us thus soon to redeem this promise, by presenting our readers with the greater part of his chapter on excision of the head of the femur, or, as he terms it, "resection in the hip-joint." He appears to us to give a good summary of the history of the operation, as an heroic means of treating advanced cases of morbus coxæ; and we shall, therefore, without further preface, proceed to give a full translation of the more important portions of it:

[a] For the translations from the Swedish in this review we are indebted to our friend and contributor Dr. W. D. Moore.

"It was not, properly speaking, until the last century that the hip-joint acquired some interest for operative surgery. The great proportion which the lower extremity bears to the entire body, the deep situation of the articulation itself, and the thick mass of soft parts which surround it, together with its close and important vascular and nervous connexion with the viscera of the abdomen, caused surgeons long to shrink from venturing on an operation in this joint. The urgent necessity for relief, on the one hand, and the enterprising character of modern surgery on the other, have, however, on this, as on so many other occasions, overleaped the ancient boundaries, and enlarged the limits of human art. Wöhler and Puthod, in 1739, according to Morand and Velpeau, first proposed to exarticulate the hip-joint in severe injuries, or in gangrene which should extend above the upper boundary of the middle third of the thigh. The opinions of the profession were long divided, as to how far so unprecedented an interference could, with any prospect of success, be practicable or prudent in the human subject; experiment had long before proved its possibility in the lower animals; many years, however, elapsed ere the operation was practised on the human subject. By degrees experience showed, not only the feasibility, but also the successful issue of this operation; so that, under the head of "exarticulation of the hip-joint," we now find a chapter in all the modern manuals of surgery; and, although the indications for adopting it are as yet imperfectly settled, ample directions are laid down for its performance.

"Charles White, many years after the proposal of Wöhler and Puthod, conceived the idea of excising the upper end of the femur in caries of its head and adjoining portion; and in 1826, Barton and Rogers, two American surgeons, suggested, and in two cases of anchylosis of the hip-joint adopted the plan of sawing through the neck of the femur, immediately within the trochanter major; and this operation had, according to them, as its result in one of these cases, the formation of a new articulation. There are thus three operations which have hitherto been undertaken in this region, and which, consequently, deserve the attention of the operating surgeon, viz.:—

Exarticulation, with removal of the entire extremity;

Excision of the upper end of the femur; and

The formation of a false joint in cases of anchylosis."

The author proceeds next to describe what he considers the most important points connected with excision of the upper end of the femur, its indications, and the methods of performing it, commencing with the history of the operation:—

"*History.*—As I have already stated, Charles White, of Manchester, was the first who, in his 'Cases in Surgery,' published in 1770, proposed the same operation for the hip-joint, which he had in the preceding year performed with success in the scapulo-humeral articulation, viz., excision of the head of the bone for caries. He himself, however, never performed the operation on the head of the femur, and the proposal appears to have long remained forgotten, for the first operation of this kind known with certainty to have been accomplished was undertaken nearly half a century later, and by a different person, although of the same surname, which latter circumstance has occasioned the two to be confounded. It was Anthony White, Surgeon to the Westminster Hospital, in London, who, in the year 1818, first performed it. The patient was a young boy with luxation of the head of the bone [ledhufvudhet], in consequence of morbus coxæ. It lay on the outside of the os innominatum, surrounded by a number of fistulous openings and sinuses, through which the caries *could easily be detected by examination with a probe.* The disease had lasted three years, and the patient's strength was rapidly declining. With the concurrence of Mr. Travers, Mr. A. White undertook the excision of the diseased portion of the femur. The bone was sawn off immediately below the lesser trochanter, after which the femur, which had been fixed in a state of strong flexion and adduction, without difficulty allowed a straight direction to be given to it, which was maintained during the process of healing by means of suitable extending apparatus [extensions förband]. The operation was perfectly successful. After a year the patient was able, with the assistance of a stick and a high-heeled boot on the side which had been operated on, to walk without difficulty. A new articulation had formed, by means of which he could accomplish all the ordinary motions of the femur. Five years afterwards the patient died of phthisis. The instructive preparation of the newly formed articulation between the pelvis [höftbenet] and the upper portion of the shaft of the femur, is to be found in the pathological section of the Hunterian Museum, in London, No. 391."

We find, by referring to the Catalogue, that both the os innominatum and the remains of the femur were slender, small, and light. The upper part of the shaft of the femur was placed opposite to the posterior part of the acetabulum, to which, as well as the adjacent part of the ilium, it was firmly, but moveably, attached by dense ligamentous tissue. Connected with the same tissue and with the upper part of the shaft was a portion of muscle enclosed by and mingled with areolar tissue.

"Dr. Schmalz, of Dresden, is reported, so early as 1816, to have removed with success the head of a femur attacked with caries. But as the account of the disease and of the operation particularly states that the operator in this case had nothing to do but to take away the head of the bone, already enucleated and completely separated by disease from the neck, through an incision, this case can scarcely be referred to the catalogue of excisions, however remarkable it may be in other respects."

Such cases as this, where nature has completely eliminated the necrosed head of the femur in advanced stages of the disease, have not been unprecedented. For example, in Todd's Cyclopedia of Anatomy, art. "Hip-joint," we have the following observations by Dr. Adams: "The writer has known two examples of the head of the femur thus separated at their epiphyses from the neck of the bones. One of these was presented to him by Mr. Shaw and is preserved in the Richmond School Museum, the other was shown by Dr. Carlisle, the present Professor of Anatomy in the Queen's College, Belfast, to the Pathological Society of Dublin. Both these patients recovered with the usual deformity."

"Notwithstanding the success which attended White's operation, he seems to have never afterwards undertaken it; although his connexion with a large hospital must, doubtless, one would suppose, in the course of years have afforded him fit subjects. After a case, in which Mr. Hewson, of Dublin, performed excision of the head of the femur for caries, but which turned out unfortunately in this respect, that the acetabulum was ulcerated through, and abscesses had previously formed within the pelvis, this operation seems to have entirely fallen into oblivion in England. At least in the journals and periodicals I have had an opportunity of examining, no case of this kind is related, until the successful one by Fergusson in 1845, which again brought the question and the operation, so to speak, to new life. Meanwhile, however, it had been performed by several surgeons, both in Germany and France, with varying success, not only for caries of the joint, but also in cases of complicated and comminuted fractures extending into the hip-joint from gunshot wounds, as well as in cases of necrosis, &c. Textor, of Wurzburg, who of all living surgeons has probably had the most extensive experience in respect to operations specially concerning the lower extremity, has himself performed as many excisions of the head of the femur as all the other surgeons of Germany taken together.

"*Statistics.*—Chelius, in his Surgery, gives seven cases of excision of the head of the femur, only one of which was suc-

cessful. A lecture on this subject, by Roux, is to be found in the Gazette des Hôpitaux for March, 1847: in it he has collected twelve cases. In the following year Mr. Henry Smith published, in the Lancet, a catalogue containing sixteen cases, of which number half were attended with the desired result. I have since that time watched every new case as it occurred, and they were all in London, and I have thus collected up, to the present time, twenty cases, of which the following is a table:

		Number of Cases.	Successful.	Fatal.
British Isles.—	Anthony White, .	1	1	0
	Hewson, . . .	1	0	1
	Benjamin Brodie,	1	0	1
	Carmichael, . .	1	0	1
	Fergusson, . .	2	2	0
	Simon, ...	1	0	1
	French, ...	1	1	0
	Haynes Walton, .	1	1	0
	Henry Smith, .	1	1	0
Germany.—	Textor, ...	4	1	3
	Oppenheim, . .	1	0	1
	Schlitching, . .	1	1	0
	Heim, ...	1	1	0
	Vogel, ...	1	1	0
France.—	Seutin, ...	1	0	1
	Roux, ...	1	0	1
	Total, . .	20	10	10

"Of these twenty excisions, fifteen were performed for coxarthrocace, or morbus coxæ; two for comminuted fractures after gun-shot wounds; one for necrosis after an old fracture; one for caries in the trochanter major and neck of the femur; and finally, one for medullary carcinoma in the upper part of the femur[a].

"*Indications.*—All the cases in which the desired result has been obtained belong to those where the operation has been performed for caries in the head of the bone, or the parts immediately adjoining the head. All the other cases have ended unfavourably. Accordingly, it is only with reference to the former class of cases that I shall here consider excision of the head of the femur, and I shall thus exclude every case con-

[a] Here the author supposes this case of Mr. Carmichael to have been one of resection of the head of the femur, whereas it was really one of amputation of the hip-joint.

nected with compound or comminuted fracture of the upper end of the femur after gun-shot wounds or any other injury.

"Undoubtedly the best founded, and at the same time most general objection which has been made to the adoption of this operation, is the difficulty of determining beforehand, whether the disease is confined to the femur, or whether it has extended to the acetabulum and pelvis. In the latter case all, even the most zealous advocates of excision, deprecate, for obvious reasons, the adoption of this hazardous operation. And yet some cases have shown that the ulceration may even have attacked the acetabulum and at the same time be confined to its edges or cartilages, so that the diseased portion might be removed with a gouge, and healing and complete cure take place, just as if this part had been entirely sound[a]. But how can this be decided beforehand? That a judgment should be grounded on the most accurate local examination with reference to this point is of the most vital importance. The best rule which can be adopted under these circumstances is, not to undertake the operation except in cases where, after the employment of all available modes of investigation, we have ascertained that the disease is confined to the femur; on the contrary, every symptom which decidedly shows that the morbid process has extended to and within the acetabulum and its immediate neighbourhood, ought to be regarded as an absolute contra-indication to the operation. The neglect of important considerations, such as these, has permitted the adoption of excision in many cases in which it never should have been ventured on; and thus has the operation been brought into disrepute with many, because the proportion of deaths consequently appeared much greater than would have occurred had a more careful diagnosis been made and acted upon. Extreme prudence and a practised judgment are, therefore, necessary to decide what cases will justify so serious an interference.

"The surgeon should bear in mind that it is not every case of caries of the hip-joint, which resists all possible non-operative remedies, and is therefore considered incurable, that is fit for excision. It appears, rather, that an impartial judgment on the experience hitherto obtained, must decide that the cases suitable for operation are the fewest in number; for it is only under certain distinct circumstances that excision of the head of the

[a] "Sir Benjamin Brodie remarks, that all that can be accomplished by the performance of such an operation of excision of the diseased head of the bone is, 'the removal of *one* portion of the disease, and that it is the larger portion of it in the bone of the pelvis which is necessarily allowed to remain.'—*Brodie on Diseases of the Joints*, p. 142. London, 1850."

femur can, with a reasonable prospect of success, be undertaken. These are: *that the disease shall be in its last stage; that displacement of the head out of its articulating cavity shall have taken place;* and lastly, *that the surgeon, by examination with a probe, or, still better, with the finger, through the fistulous openings and sinuses which, in the majority of such cases, are to be found around the diseased parts, shall have as accurately as possible ascertained that the disease is principally confined to the upper extremity of the femur, and that it has not spread more deeply, so as to implicate the acetabulum and pelvis.*

"*Possibility of Mistake as to the spontaneous Luxation of the Head of the Bone.*—The symptoms which characterize the last stage of morbus coxæ are so well known, that they need not be here enumerated. It is necessary to observe, that we should not be too hasty in making the diagnosis of a spontaneous luxation, for there are cases which, on first view, present a very great resemblance to spontaneous luxation, and in which, at the same time, no real dislocation exists. The decided shortening of the limb, the trochanter major strongly drawn up and projecting, together with the other appearances of the affected hip, might easily lead to the presumption that a luxation had occurred, particularly where the disease has lasted long. And yet, notwithstanding all these symptoms, the head of the bone may still remain in the acetabulum, either perfectly sound, when the disease is confined to the neck and trochanter, or in a state of partial anchylosis. The following case, which I had myself an opportunity of observing, in the beginning of the spring of 1848, at King's College Hospital in London, may be adduced in illustration of this point. In one of Mr. Fergusson's wards, there lay for some months a woman, of about twenty years of age, who had for sixteen years laboured under symptoms of caries of the hip-joint. Her condition showed the existence of a disease incurable by ordinary means, and, moreover, that it was confined to the upper extremity of the femur. An abscess had formed immediately beneath and behind the trochanter major, which was opened, and through which a probe could be passed, along the above-mentioned tuberosity and the head of the femur, to the joint. The entire aspect of the hip induced Mr. Fergusson to imagine that dislocation of the head of the bone had already occurred, and he therefore determined to perform excision of it and the diseased part of the bone. It was not until he had, by means of an incision along the outside of the trochanter, and another at right angles with it at its lower end, reached the bone, and separated the soft parts from the anterior and posterior edge of the neck, so that the joint

became accessible, that he discovered his mistake as to the supposed luxation of the head; for not only did this not exist, but the head of the bone was, on the contrary, firmly anchylosed in the acetabulum. Finding, on closer examination, the trochanter major and the immediately adjoining part of the neck carious, he determined to excise the diseased part. He now sawed through the neck of the femur so far in that the incision reached the sound substance, and then in like manner divided the shaft of the femur at the base of the trochanter major, and afterwards removed the intermediate piece thus set free. On the superior and posterior edge of the neck, a round hole was found, through which a necrosed almost separated piece of bone was discovered, which was taken out. In place of an excision of the head of the femur, which had been the original intention, the operation thus became an excision of the neck and trochanter, and so strictly taken belongs, not to the subject under consideration, but rather to the proceeding proposed by the before-mentioned American surgeons in anchylosis of the hip. In 1847, Maisonneuve had, at the Bicêtre at Paris, a successful case in which he sawed through the neck for complete anchylosis of the joint.

"The occasional difficulty of diagnosis on this point, of which I have given an example above, cannot, however, hereafter mislead any one who makes it a rule never to undertake the operation except in cases where it is evident, both on inspection and to the sense of touch, that the head of the bone is out of its socket and carious. Where the disease has lasted a long time in such a state, fistulous sinuses and abscesses always form in the immediate vicinity. Through these we can generally, with the finger or a probe, feel the displaced head, and approximatively estimate the degree and extent of the disease. To investigate this point it may be necessary to open an abscess formed over or around the articulation, and in this way we sometimes find the head of the bone lying in the middle of the abscess on the os innominatum, so that the finger can easily be passed round it. It is in general much more difficult to decide whether the pelvic portion of the hip-joint and the parts immediately surrounding it are sound, or to what degree it is engaged in the morbid process, and there is perhaps no sign which can give perfect certainty on this point. Where, however, the destruction has attained a more considerable extent, abscesses and fistulous sinuses in most cases form above or around the diseased parts, and by examination through them we can obtain a tolerably sure guide for our judgment of the case.

"If a chronic abscess is found in the groin, it may depend

on a psoitis or an inflammation of the iliacus internus, which may arise at a later period as a consequence of caries of the hip-joint; consequently this also ought to be regarded as a decided contra-indication to the performance of the excision.

"*Inference.*—Where, then, in this manner the dislocation of the head of the femur is ascertained with certainty, and that after examination, either by means of a probe introduced through fistulous sinuses leading to the focus of the disease, or of the finger in an opened abscess close to the joint, the head of the bone is found to a great extent either deeply carious (the acetabulum and pelvis being at the same time in a healthy condition), or only in a less degree morbidly altered, and that besides there are no fistulous communications with the acetabulum or cavity of the pelvis, nor any chronic abscess present,—where, under such circumstances, the patient's strength is visibly and progressively diminishing, and all prospect of the possibility of a natural cure or of effecting a cure by the assistance of non-operative measures has vanished, in such a case the surgeon not only may consider himself justified, but ought also to feel himself called upon to undertake the excision of the diseased portion of the femur, an operation which, however serious it certainly is, is by no means so formidable and dangerous, as is generally imagined. If it be the surgeon's duty to make an effort to save life, where it is evidently at stake, and still more where (without his assistance) its loss is inevitable, it must also be his duty, under such circumstances as those above described, to offer the patient the prospect of rescue which may yet remain in an operation, and not to leave him a sacrifice to death, without having tried all the means which art has in her power to employ.

"*Performance of the Operation.*—I now pass to the description of the different modes of performing the excision. He who has not beforehand closely attended to, and made himself well acquainted with this subject, will doubtless, on first thoughts, consider the operation equally dangerous for the patient to undergo, and disagreeable and difficult for the operator to perform. Such was in fact the feeling with which, in the month of November, 1847, I entered the operation theatre in King's College Hospital, to see Mr. Fergusson perform an excision of the head of the femur, in a boy of eight years of age. I found, however, after I had twice seen it performed on the living subject, and after I had more closely considered the altered anatomical relations in which such an operation is undertaken, that it is neither so dangerous nor so dreadful. For, although resolution and caution are equally necessary to him who undertakes

its accomplishment, there is nothing in the nature or extent of the operation itself, calculated to throw any serious difficulty in the way of its accomplishment, under such indications as have been already enumerated, and when the surgeon goes to work with calm consideration, and an accurate anatomical acquaintance with the region in which he has to operate."

Having given directions as to the mode of practising the operation on the dead subject,—and in such subjects, with sound hip-joints, it is much more difficult than in the living, where the ligaments are already in great part destroyed, and the corroded head of the bone is displaced,—the author proceeds to describe the methods of performing excision on the living subject.

"The most ancient and simplest mode of performing the operation in question on the living subject, and which was also adopted by Anthony White, is by making an incision along the outside of the trochanter major, beginning one or two inches above this projection, and extending about three inches below it. The exact length of this must, however, be determined by the circumstances of the particular case, and the size of the part to be taken away. When, according to the indications for the operation above enumerated, the head of the bone is already out of its socket, all proceedings for bringing about its enucleation are superfluous, and the remaining manipulations, which may be required for removing the disease, are so simple and evident as to demand no detailed description. Oppenheim, Seutin, and others, likewise employed this method and recommend it above any other. Several surgeons have, however, found the space afforded by a simple incision too limited for completing the operation, and, therefore, to obtain sufficient room, have performed a species of flap operation.

"In the first excision of the hip-joint performed by Fergusson, and which is described at length in the Transactions of the Medico-Chirurgical Society for 1845, a single longitudinal incision along the outside of the trochanter was sufficient. In the two later excisions which I saw him perform, in the autumn of 1847 and the spring of 1848, such an incision, with which the operation was begun, afforded too little space, on which account another was made, perpendicular to the first and passing through its lower end, so as to form an incision in the shape of an inverted T (thus ⊥). This seems, in most cases, to be the simplest and best. Accurate care must be taken, in making the incision across the femur, not to let it extend so far, anteriorly or posteriorly, as to injure the nerves, much less the trunks of the blood-vessels. No bleeding of serious conse-

quence is to be apprehended. The arteries which might by possibility come under the knife are branches of the ischiatic, and, where the head of the bone is drawn strongly backwards and very high on the dorsum of the ilium, of the gluteal. The arterial trunks ought, in the great majority of cases, to be sufficiently protected by their situation. From his own experience, Fergusson disapproves of the attempt to pass a chain-saw round the exposed portion of the femur, while still *in situ*, in order to accomplish its removal. Instead of this, he recommends that, after a sufficient space has been obtained by one or more incisions, the diseased portion should be brought out through the opening by means of strong adduction of the limb; and then that the soft parts should be gradually loosened around the bone, so that the sawing through the latter, which is accomplished with an ordinary amputation saw, may take place in the sound substance of the bone. In the first case of this operation performed by Fergusson, four and a half inches of the femur were taken away from a boy, fifteen years of age. The patient lost scarcely an ounce of blood, and no vessel required to be tied. The reactionary fever was inconsiderable; and the system appeared, on the whole, to be benefited by the operation. A considerable portion of the wound healed by the first intention, night sweats and other hectic symptoms gradually disappeared, and, after six months, the boy's health and strength were completely restored. Two small fistulous openings remained in the line of the cicatrix, but they gradually contracted in proportion as the secretion diminished; and no symptom existed of any disease remaining in the femur or pelvis. The end of the bone, from which the portion had been sawn off, rested against the acetabulum, and a kind of articulation was subsequently formed between them. The limb was two and a half inches shorter than the other; the difference between the shortening and the length of the removed portion depending on this, that the measurement of the latter followed the curve of the neck of the femur.

"A circumstance which the surgeon ought never to omit in this operation is, the investigation of the state of the acetabulum, and the condition of the bone in its immediate vicinity. The leaving behind of ever so small a diseased portion, which might easily be taken away in the operation, may destroy the whole result, and may lead to a speedy return of the disease in a still more dangerous form. If the acetabulum and surrounding parts are found to be sound, the operation is concluded when the diseased portion of the femur is removed. If, on the contrary, the edges of the acetabulum be carious, the diseased

portion is best taken away with a Liston's forceps. Should the walls or fundus of the acetabulum be ascertained to be superficially affected, the diseased part should be removed with a gouge. I have seen Fergusson, in a case of excision, take away the greater part of the margin of the acetabulum when affected with caries. In fact, the operation in question should never be undertaken without the instruments I have enumerated being at hand.

"*Treatment after Operation.*—The bandaging and management after the operation ought to be conducted according to the general and well-known principles for the treatment of wounds. The introduction of any irritating applications, such as lint, tents with ointments, &c., into the depth of the wound, should be especially avoided. The edges should be immediately drawn together, leaving, however, a sufficient opening in a suitable situation for the escape of the discharge. Beyond this, the lighter and simpler the applications are, the better. A compress dipped in water from which the chill has been taken, laid over the hip, and renewed every hour or half-hour, is, in most cases, quite sufficient. After suppuration has set in, this is changed for an application of lukewarm water, or for poultices; the latter, however, are in general more troublesome, and, when used for a long time, are much more expensive. When the wound has filled up tolerably well, and the discharge has in proportion diminished, dry applications are the best. Should the process of healing be suspended before this, and the edges of the wound assume a less healthy aspect, it is advisable to insert long pieces of lint steeped in a solution of chloride of zinc, in the proportion of from one to three grains to the ounce of water, which is to be changed two or three times a day or oftener, the wound being from time to time cleansed by injections of tepid water, with or without the addition of vinegar. After such an operation, the situation and fixing of the limb operated on demands distinct attention. It must, by means of a suitable apparatus, be kept straight and extended, and placed in a position, as far as possible, to counteract the loss of a portion of the skeleton. The extension must be so adapted as to prevent the upper extremity of the resected shaft from lying too high up, and so gliding on the dorsum of the ilium, by which the leg would be rendered shorter than absolutely necessary. Nor should the leg be drawn too much down, so as to create a more considerable distance between it and the acetabulum, in consequence of which firmness and security in the motions which may be obtained might be either rendered altogether impossible, or not be attained until after a very long time. This evidently

depends on the fact, that the false joint, the rapid and as perfect as possible formation of which is so necessary and desirable, is either not at all produced, or not for a length of time, in consequence of the parts being so far removed from one another. The inconvenience of this is more perceptible in proportion to the more advanced age of the patient, and his consequently diminished reparative powers. In children the removed portion of bone is here, as elsewhere, often replaced with surprising completeness and rapidity. Experience has also shown that the prognosis, in reference to the operation, is in general more favourable with them than with adults.

"The apparatus for extension which I saw Fergusson employ, and which seemed to be equally simple and adapted to the purpose, consisted of a long splint, similar to that employed by Boyer in fracture of the neck of the femur. This extended about four inches above the crest of the ilium; and in order to facilitate the dressing of the wound (Fergusson employed only 'water-dressing'), the upper part answering to the hip and femur was moveable, being fixed to and in the line with the lower and longer part of the splint by a sliding bolt. The latter could thus be left untouched during the application of a poultice, by which the inconvenience of so often moving the limb was avoided; the dressing of the wound also was much more easily accomplished, and with less loss of time."

It does not appear that our author, whom we know to be a young surgeon of much promise, has as yet had much experience in the treatment of such severe cases of hip disease as he has here adverted to; but it is plain that, from what he has himself seen in the practice of others, he is a warm advocate (under certain circumstances of advanced disease of the hip-joint) for the operation of excision of the head of the upper extremity of the femur being performed, together with the removal, if necessary, of any portion of the acetabulum which may be discovered to be carious.

Indeed the result of the first excision of the head of the femur, performed by Mr. Anthony White, in 1818, so far as one case goes, is very strongly in favour of this operation being had recourse to, when the disease is in an advanced stage, and the head of the bone dislocated on the dorsum of the ilium.

Mr. A. White's patient could, at the end of a year after the operation, walk on a high stirrup several miles, without the use of a crutch or stick. It appears he acquired almost all the motions of the hip-joint except those of rotation and abduction. He laboured as a shoe-maker for nearly five years, and

then got phthisis, and died. By consulting the catalogue of the museum of the College of Surgeons of England, we find that both the os innominatum and remains of the femur were *slender*, *small*, and *light*. The upper part of the shaft of the femur was found placed opposite to the posterior part of the acetabulum, to which, as well as to the adjacent part of the ilium, it was firmly, but moveably attached, by dense ligamentous tissue[a].

It would appear that this patient had been attacked with morbus coxæ, when he was only five years of age; that he was eight when the operation for the excision of the head and neck of the femur, together with the two trochanters, was performed; and that he lived until he attained the age of thirteen years.

We may here remark, that one of the strongest arguments against the propriety of having recourse to such an operation as this of A. White has always been, that, in cutting out the head of the bone, we are in danger of removing only a portion of the disease, as the bones of the pelvis are usually implicated in the caries; yet, in this case, we find that Mr. White states the disease had been of three years' duration: "When I first saw him," he says, "he was much emaciated; several abscesses had formed during the period, over and around the diseased structures, having many fistulous openings, through which the probe easily detected the surface of the displaced bone to be in a state of caries; and several small exfoliations had occurred from the ilium, ischium, and os pubis, over which abscesses had formed."

The good result in this very fortunate case may give us encouragement to operate on very young subjects; these, we know, are more likely to be able to bear up against the increased suppuration, which for a time must necessarily follow on such an operation, than those who are older. The termination of the patient's life ultimately by phthisis cannot be adduced, in our opinion, as any argument to show that the resection alluded to should not have been performed. We learn from the observation made on the motions the femur enjoyed after the operation, that they were limited, and that rotation could not be performed. Indeed this might be inferred from the necessary removal of the neck of the femur, which we are aware is the lever of rotation.

The *post mortem* examination of the new joint showed that the union was by means of ligament, and that what remained of

[a] See Catalogue, vol. ii. p. 230.

the femur was "*slender, small, and light.*" That this shall always be the consequence of the operation in question in young subjects, is only to be expected; because we must recollect that the line of the superior epiphysis, in which the seat of the growth in length of the femur principally resides, is, in such operations, included in the parts removed.

Mr. Fergusson, of London, has the merit of having revived this operation in 1845, and his account, in the Medico-Chirurgical Transactions, shows that his patient, aged 14, had been much improved by the operation. Although we find this case again alluded to by Mr. Fergusson, in 1849, no further particulars are given, which is a matter to be lamented; for it must be recollected that those who recommend this operation do so on the principle that a source of constitutional irritation is thereby removed, whence the patient's general health is more speedily restored; and that the limb, by this proceeding, is brought into better position, and thus made useful to the patient in progression. It is only by following out the history of these cases after they have long left our hospitals that we can arrive at correct conclusions as to the real utility of the operation.

Mr. Fergusson has had several similar cases, and we find him, consequently, a very zealous advocate for this operation; however, we should recollect that he speaks with caution, and he does not bring the operation forward as the treatment for hip disease: "I advocate," he says, "the practice as being applicable to certain cases only, and these cases seem to me to be so few in number that years may be passed in active practice ere such an instance may pass under the surgeon's notice." And he elsewhere also has observed, "that there had been much discussion as to the propriety of this operation; it was a subject that admitted of, and ought to have, a fair and open discussion amongst surgeons"[a].

Mr. H. Smith is less reserved in his recommendation of the practice we are now describing. In presenting two specimens of the head and neck of femora removed by operation, the one by himself, the other by Dr. Morris, of Spalding, he said, he "did not bring forward these specimens for the purpose of arguing about the propriety of the operation of excision of the head of the femur, as that was now a settled question, but merely to show the pathological difference in the bone so beautifully marked"[b].

As to the all-important opinion of Sir Benjamin Brodie on

[a] Medical Times, July 28, 1849, p. 79.
[b] London Medical Examiner, by Crisp, vol. . 1851. p. 71.

this question, we quote the following passage in full, which is all we find in his work on this point:

"In an old case of diseased joint, the head of the femur may sometimes be felt lying on the dorsum of the ilium; and in consequence of the general emaciation of the patient, and the wasting of the muscles, with so little soft parts over it, that it seems to be almost immediately beneath the common integuments. In such a case, it has been proposed to make an incision on it, and remove the head and neck of the femur by a saw. It would appear that this operation has been actually performed with some degree of advantage; and I do not doubt that circumstances may occur to make it worth while to have recourse to it. But it is to be observed, at the same time, that all that can be thus accomplished is the removal of one portion of the disease, and that it is the largest portion of it in the bone of the pelvis, which is necessarily allowed to remain. The operation cannot be performed without a certain degree of local disturbance, and more or less loss of blood; and taking all these things into consideration, I conceive that he should not recommend it except where some very unequivocal advantage may be expected from it"[a].

Mr. Syme, of Edinburgh, is, of all surgeons, the most strenuous opposer of A. White's operation.

"Some operations have been lately performed in London," he says, "with the view of remedying caries of the hip-joint by cutting out the head of the thigh bone; but this proceeding must have originated and been conducted in forgetfulness of the well-established pathological fact, that where caries attacks the surface of a joint, it is never limited to one of the bones which compose the articulation.

"If the articulating surface of the head of the thigh bone be carious, it follows, as a matter of absolute certainty, that the acetabulum must be in a similar condition. But as the acetabulum does not admit of a removal in the living body, with any prospect of safety or advantage, no benefit can be derived from taking away a part of the articulation; and, therefore, any excision of the head of the thigh bone for caries of this joint should be regarded as no less erroneous in theory than objectionable in practice."

While, then, a warm difference of opinion seems to exist as to the propriety of performing the operation of resection of the head of the femur, in such cases as those above alluded to, between such eminent surgeons as Messrs. Fergusson and H.

[a] Lancet, March 10, 1849.

Smith, of London, on the one hand, and Mr. Syme, of Edinburgh, on the other, it may be asked of us, what, on this important practical question, has been our experience here, and what our opinion? Our reply is, that we are not aware of any case of excision of the head of the femur for caries having been performed in Dublin, except the case referred to already, which was operated on by the late Mr. Hewson of the Meath Hospital. The result was most unfortunate and discouraging, and such an operation has not been repeated in this city, nor, as far as we know, in the provinces. Indeed, for ourselves, we must confess we would much prefer to leave the patient to his fate (if anchylosis could not be hoped for), rather than saw off the head of the carious femur; that is, supposing the patient were, as in Mr. Hewson's case, an adult. Experience teaches us that, in the ordinary cases of adults, in whom suppuration has occurred communicating with the hip-joint in consequence of morbus coxæ, the prognosis, as to the ultimate result, and as to the safety of the patient's life, should always be very unfavourable; because such adult patients have not resources in their constitution, like the young subject, nor are they found equal to bear up against the great increase of exhausting suppurations which must, for a time at least, immediately succeed to these operations. But let us suppose the case of a youth, under ten or twelve years of age, whose internal organs are sound, and who is affected with morbus coxæ in its third or fourth stage, the carious head of the femur dislocated on the dorsum of the ilium, with numerous sinuses, and the limb in the usual faulty position, adducted, flexed, and so placed and directed that, if anchylosis should take place, it would be worse than useless. Perhaps in such a case a surgeon, if he could not straighten the limb, might be justified in having recourse to Mr. A. White's operation.

But such cases, we imagine, are very rare, and likely to be more so; and this Mr. Fergusson himself admits. In the selecting of a case for such an operation, and giving our prognosis, &c., let us always bear in mind that morbus coxæ is usually rather a symptom of a general cachectic state of the whole constitution, than a local disease, removeable by a surgical operation.

The controversy as to the propriety or impropriety of performing these severe operations, in advanced cases of hip disease, can only be decided by time. After some years' dispassionate consideration and experience, and, above all, by the time-proved results of the many cases which have already been operated on, the question may be ultimately and fairly decided. The only case we may say we have as yet fully before us, is

the one operated on by Mr. Anthony White; as this patient was under notice for five years, and after his death the limb has been, as already mentioned, carefully examined. It is to be supposed that, on some future day, the sequel of the other cases also will be published.

We believe, however, that cases for such an operation will not hereafter frequently present themselves, because, according to the more improved plan of treating hip disease, the patient is not permitted to keep the thigh permanently flexed at a right angle with the pelvis and adducted, a position of the limb so favourable for dislocation of the head of the bone from the acetabulum, and so likely to induce the condition of things the excision of the head of the femur has been proposed to remedy.

In the modern plan of treating the early stages of hip disease, we are very sedulous in endeavouring to keep the limb always in that position in which, should anchylosis take place, it will be found most useful and most nearly to perform its normal functions. If, with such an object constantly in view, the limb be kept straight, or nearly so, it is not likely that dislocation will occur; and the operation of "resection" of the head of the femur is only to be contemplated in those cases in which the head of the femur has been displaced on the dorsum of the ilium, and in which, besides the other reasons for the excision, the local circumstances of the head of the bone and direction of the limb are observed to be such that, should even anchylosis occur, the limb would not serve usefully the purposes of progression.

Practical Remarks on the Treatment of Aneurism by Compression: with Plates of the Instruments hitherto employed in Dublin, and the recent Improvements by Elastic Pressure. By JOLLIFFE TUFNELL, M. R. I. A., F. R. C. S. I., Surgeon to the City of Dublin Hospital; Surgeon to the Dublin District Military Prison; and Lecturer on Military Surgery in Dublin. Dublin: Fannin & Co. London: Churchill. 1851. 8vo. pp. 154.

To the Irish School of Medicine is pre-eminently due the merit of having revived and mainly contributed to the perfection of the treatment of aneurism by compression; while it can establish, no less satisfactorily, the most indisputable claims to the scientific elucidation of the principle on which this mode of cure is founded, and to the perfecting of the mechanical means requisite for its successful application. In addition, there has been no lack of able advocates to uphold

the merits of this modern improvement in practical surgery, against a more than usually vigorous display of prejudice and obstinacy, and an equally unworthy indifference, which, in more than one instance, as we shall presently have occasion to show, have been an obstacle to that careful examination and patient consideration of the mass of facts adduced in evidence, which even the *alleged* importance of the subject demanded at the hands of all those who, from the influence of their position, or their previously acquired scientific character, would be likely to direct the opinion of the schools to which they belong. We can now point to several writers amongst us, who have themselves not only practically aided in placing this method of treatment on its present firm basis, but have also eloquently urged the most convincing arguments in its favour; while to one, in particular, we owe a most learned and elaborate history of the various attempts, both recent and remote, which medical skill and ingenuity have made to supplant the knife in the treatment of this formidable affection[a]. Notwithstanding the publication of the excellent little work just alluded to, and a number of special monographs by some of the most distinguished of the surgical staff of our various hospitals, we were, however, very much in want of a book to which we could refer those who were anxious to examine the entire evidence collated from various sources, which has of late accumulated considerably, and could only be availed of by those who were willing to undertake a somewhat laborious search through the pages of our periodicals. This is the point of view in which Mr. Tufnell has taken up the subject; that he is fully entitled to enter the field, and to deal practically with the details of the process of cure, will be at once admitted, when we state that it has been employed in his own hands with not less than ordinary success.

Nearly four years have now elapsed since, in an editorial article, we presented our readers with a tabular view of the cases which had been treated by compression up to that period. Since then, no less than twenty-one cases have occurred in Dublin alone, so that, with the large number of instances now before us, in which the merits of compression have been tested by experience in different hands, it cannot be considered premature to say that we now demand for it, in all scientific circles, whether in Great Britain or on the Continent, the fullest and closest scrutiny, as well as the most calm and impartial consideration; and we do not think that we by any means lay ourselves open

[a] Observations on Aneurism and its Treatment by Compression, by O'B. Bellingham, M.D. 1847.

to the charge of exaggerating enthusiasm, when we state it as our conviction, that the time has now come for fairly balancing the weight of argument on both sides of the question, and finally adjusting the relative claims to superiority of the "knife" and the "compressor."

There is, perhaps, no way in which we can better lay before our readers clear and concise views of all the bearings of this highly important practical question, than by taking a glance at the statistical results obtained by the rival methods of cure. And, first, with regard to the ligature. It is really only since the introduction of Hunter's operation, which dates so recently as 1785, that the tying of an artery for the cure of aneurism can be at all considered as worthy to take a place amongst the accredited methods of treatment recognised by modern surgery. The success which attended this method, as well as the subsequent improvement by Scarpa, when compared with the older operations, gave it an early eclât, the very echo of which still affects the judgment of many in our own times, who, relying but little on their own powers of discrimination, are too much in the habit of receiving unquestioned dicta stamped with a traditionary authority. That a real advance had thus been effected it would be unjust to deny, but that the operation by the knife, even in the most skilful hands of the past or the present day, ever answered the requirements of being a safe and generally successful method of treatment, it would be equally far from the truth to assert. Dangers of no ordinary kind attend its performance, even under circumstances apparently the most favourable. The risk of life after a ligature had been tied on a vessel, even in the most dexterous and masterly manner, from secondary hemorrhage, phlebitis, sloughing of the sore, or mortification, reached a fearfully high figure in the scale of chances. And with the various other circumstances which help to complicate particular cases, it is to be regretted that a sense of that high responsibility which devolves on the surgeon who undertakes the performance of any capital operation, has not in every instance secured for compression, since its re-introduction, the test of a practical trial; especially when its application, if unsuccessful, would in no way, we assert, interfere with the subsequent adoption of the more favourite operation.

We proceed now to lay before our readers some statistical results, deduced from the works of the most recent systematic writers on the affections of the blood-vessels :—

Authors.	No. of Cases.	Operation.	Results.
Lisfranc[a],	180	Ligature of femoral,	Secondary hemorrhage in 32, or 1 in 6.
Porta[a],	600	Various,	Secondary hemorrhage in 75, of whom 30 died from the bleeding, and 14 from other causes.
Crisp[a],	256	Various.	21 died from hemorrhage, and 8 from other causes.
Phillips[b],	171	Ligature of femoral,	55 cases died, and amongst the successful cases 15 were attended with secondary hemorrage.
Norris[b],	188	Various.	46 died, while the successful cases were complicated, in many instances, by hemorrhage, suppuration of sore, amputation, &c.

Here is an array of unfavourable terminations, sufficient to make the most warm advocate of the knife pause when he compares with them the balance-sheet presented on the side of compression. The reader will not fail to perceive that the mortality is remarkably high, varying between one-fifth and one-third of the entire number of cases; while even in those which recovered, we have to make deduction for amputations, mortification of the toes, sloughing, &c., before we can arrive at any just notion of the value of the returns usually made of "cured." Thus, for instance, in thirty-one of Porta's cases which recovered from hemorrhage, the plug was used in thirteen, torsion in four, *a second or third ligature in nine*, bandaging and cold applications in three, and amputation of the limb in two.

Let us now proceed to examine the evidence produced in favour of compression. In the table on the opposite page, which Mr. Tufnell has published, it will be seen that he has omitted all those cases which occurred previously to the year 1842; and further, that he gives no account of those treated elsewhere than in Dublin. Reference to the table given in a former number of this Journal[c] will show that he has thus deprived himself of evidence to be deduced from six cases treated in Dublin, from 1820 to 1842, of which three were cured by compression; and in the same manner nine more are excluded which occurred in various parts of England, and of which eight were successfully treated by similar means: thus giving a large proportion of successful terminations. Of the thirty-nine cases which have been under treatment within the last eight

[a] Crisp on Diseases of the Blood-vessels, pp. 190, 191.
[b] Miller's Surgery, p. 583. [c] Vol. ii. N. S. p. 129.

No.	Surgeon.	Sex.	Age.	Form of Disease.	Right or Left Side.	Where treated.	When treated.	Duration of Compression. Days.	Duration of Compression. Hrs.	Result.	When and where published.	Remarks.
1	Dr. Hutton,	M.	30	Popliteal,	Right,	Richmond Hospital,	Oct. 3, 1842,	28	..	Cured.	Dub. Med. Press, May 3, 1843.	
2	Mr. Cusack,	M.	55	Popliteal,	Left,	Steevens' Hospital,	Jan. 17, 1843,	31	..	Cured.	Dublin Journal, May, 1843.	
3	Dr. Bellingham,	M.	32	Popliteal,	Right,	St. Vincent's Hospital,	Mar. 25, 1843,	2	..	Cured.	Dub. Med. Press, May 3, 1843.	Same individual as Case 5.
4	Dr. Harrison,	M.	29	Popliteal,	..	Jervis-street Hospital,	May 9, 1843,	93	..	Cured.	British Association Report, 1843.	
5	Dr. Bellingham,	M.	33	Femoral,	Left,	St. Vincent's Hospital,	June 20, 1844,	43	..	Cured.	Dub. Med. Press, Aug. 28, 1844.	Same individual as Case 3.
6	Dr. Kirby,	M.	28	Popliteal,	Left,	Jervis-street Hospital,	July, 1844,	53	..	Cured.	Dub. Med. Press, Sept. 25, 1844.	
7	Mr. Cusack,	M.	26	Popliteal,	Left,	Patient's residence,	Nov. 15, 1844,	7	..	Cured.	Dub. Med. Press, Feb. 25, 1845.	
8	Mr. Porter,	M.	29	Popliteal,	Right,	Meath Hospital,	Dec. 31, 1844,	24	..	Cured.	Dub. Quart. Jour., May, 1846.	
9	Mr. Cusack,	M.	30	Popliteal,	..	Steevens' Hospital,	Mar. 12, 1845,	20	..	Died of disease of heart.	Dub. Quart. Jour., Apr. 30, 1845.	
10	Dr. Hutton,	M.	..	Popliteal,	..	Richmond Hospital,	June 23, 1845,	21	..	Ligature applied.	Dub. Med. Press, Feb. 6, 1850.	Artery tied, and recovered.
11	Dr. O'Ferrall,	M.	32	Popliteal,	Left,	St. Vincent's Hospital,	June 25, 1845,	33	..	Cured.	Dub. Quart. Jour., Nov. 1846.	
12	Mr. Cusack,	F.	40	Brachial,	Right,	Steevens' Hospital,	July 9, 1845,	9	..	Cured.	Not published.	Traumatic aneurism, from gun-shot injury.
13	Mr. Porter,	M.	20	Popliteal,	..	Not stated,	July 28, 1845,	20	..	Cured.	Dub. Quart. Jour., May 7, 1846.	
14	Dr. Macdonnell,	M.	32	Popliteal,	Right,	Richmond Hospital,	Nov. 1845,	2	..	Cured.	Dub. Med. Press, May 21, 1846.	Left femoral artery previously tied for popliteal aneurism of that side.
15	Mr. Cusack,	M.	33	Popliteal,	Right,	Steevens' Hospital,	Feb. 1846,	43	..	Cured.	Dub. Quart. Jour, August, 1846.	
16	Dr. Bellingham,	M.	38	Popliteal,	Left,	St. Vincent's Hospital,	Feb. 10, 1846,	..	..	Died of erysipelas.	Dub. Med. Press, Oct. 14, 1846.	
17	Dr. O'Ferrall,	M.	37	Popliteal,	Right,	St. Vincent's Hospital,	April, 1846,	11	..	Cured.	Dub. Quart. Jour., Nov. 1846.	
18	Dr. Humfrey,	M.	43	Popliteal,	Right,	Royal Military Infir.,	Feb. 9, 1846,	..	10	Cured.	Dub. Med. Press, Oct. 14, 1846.	Previous, but ineffectual, compression had been made.
19	Dr. O'Brien,	M.	34	Popliteal,	Right,	Adelaide Hospital,	Oct. 1846,	72	..	Cured.	Dub. Med. Press, May 12, 1847.	Interrupted pressure at intervals.
20	Dr. Bellingham,	M.	34	Popliteal,	Left,	Patient's residence,	Feb. 1847,	21	..	Pressure discontinued.	Unpublished.	The aneurism never increased. This is the same individual as Case 19.
21	Mr. Smyly,	M.	48	Femoral,	Right,	Meath Hospital,	April, 1847.	70	..	Cured.	Dub. Med. Press, Dec. 11, 1850.	
22	Dr. Humfrey,	M.	31	Femoral,	Right,	Royal Military Infir.,	July 21, 1847,	..	33	Cured.	Dub. Med. Press, Dec. 1, 1847.	
23	Mr. Tufnell,	M.	27	Popliteal,	Right,	Patient's residence,	Nov. 5, 1847,	6	..	Cured.	Dub. Med. Press. Dec. 1, 1847.	Same individual as Cases 28 and 36.
24	Mr. Cusack,	M.	30	Popliteal,	Right,	Steevens' Hospital,	April 22, 1847,	4	..	Cured.	Dub. Quart. Jour., Aug., 1847.	Traumatic aneurism.
25	Dr. Orr,	M.	27	Brachial,	Right,	City of Dublin Hosp.,	Aug. 21, 1847,	..	..	Ligature applied.	Dub. Med. Press, March 8, 1848.	High bifurcation, two vessels secured.
26	Dr. Fox,	M.	30	Femoral,	Left,	Military Infirmary,	May 10, 1848,	..	..	Amputation.	Dub. Med. Press, Dec. 20, 1848.	Recovered.
27	Dr. Hutton,	M.	34	Brachial,	..	Richmond Hospital,	July 22, 1848,	12	..	Cured.	Dub. Med. Press, May 16, 1849.	Traumatic aneurism.
28	Mr. Tufnell,	M.	28	Popliteal,	Left,	Patient's residence,	Nov. 1848,	42	..	Cured.	Dub Med. Press, May 16, 1849.	Same individual as Cases 23 and 36.
29	Dr. Hutton,	M.	32	Popliteal,	Left,	Patient's residence,	Jan. 3, 1849,	..	7	Cured.	Dub. Med. Press, May 16, 1849.	
30	Sir P. Crampton,	M.	11	Radial,	Left,	Patient's residence,	July 28, 1849,	..	16	Cured.	Dub. Med. Press, Sept. 12, 1849.	Traumatic aneurism.
31	Dr. Banon,	M.	27	Popliteal,	Left,	Jervis-street Hospital,	Sept. 11, 1849,	5	..	Cured.	Dub. Med. Press, Nov. 28, 1849.	
32	Dr. Clayton,	M.	25	Popliteal,	Right,	Military Infirmary,	March, 1850,	..	39	Cured.	Unpublished.	Same individual as Case 33.
33	Dr. Clayton,	M.	25	Popliteal,	Right,	Military Infirmary,	April, 1850,	..	..	Amputation.	Unpublished.	Recovered.
34	Dr. Read,	M.	28	Popliteal,	Left,	Mercer's Hospital,	August, 1849,	..	..	Died.	Dub Med. Press, March, 1851.	Died of diseased heart and lungs.
35	Dr. Hargrave,	F.	22	Femoral,	Right,	City of Dublin Hosp.,	July, 1850,	20	..	Cured.	Unpublished[a].	
36	Mr. Tufnell,	M.	29	Femoral,	Left,	City of Dublin Hosp.,	Sept. 1850,	13	..	Cured.	Unpublished.	Same individual as Cases 23 and 28.
37	Dr. Bellingham,	M.	44	Popliteal,	Right,	St. Vincent's Hospital,	Dec. 1850,	..	23	Cured.	Unpublished.	
38	Dr. Quigley,	M.	32	Popliteal,	Right,	Artillery Hospital,	Jan. 1851,	..	..	Amputation.	Unpublished.	Recovered.
39	Mr. Colles,	M.	29	Femoral,	Right,	Steevens' Hospital,	Feb. 1851,	37	..	Cured.	Unpublished[b].	

[a] To be published in our next Number.

[b] Published in our present Number.

years, thirty are examples of complete and perfect cure, being in the proportion of seventy-seven per cent., within a fraction! Of the remaining nine, it must be at once admitted by all candid minds, that in eight compression was by no means fairly tried. In one the aneurism showed no increase in size during four years after the application of pressure for a short period, which was discontinued, as the man had a large family to support, and the disease did not prevent him from following his employment. In the next two the ligature was employed; in one owing to the excessive irritability of the patient, and in the second owing to a high bifurcation of the brachial artery; and, in reference to this case, we would suggest that, with the present improved means for applying pressure, there can be no reason why a simple apparatus should not be devised, which would control both arterial trunks.

With regard to the three cases in which amputation was performed, we beg to refer our readers to Mr. Tufnell's detailed account of their history. We perfectly agree with him that they were not cases for a fair trial of compression; and it cannot be urged, with the slightest shadow of justice, that its employment had anything to say to rendering the subsequent removal of the limb necessary.

The last and most important consideration has reference to the three instances in which compression was used, and where, either consequent on, or during its employment, death occurred. (See Table, Cases 9, 16, 34). On these important points we beg to quote Mr. Tufnell's own words:

"The first case was that of a man who had a large popliteal aneurism, with a thin sac, so rapidly increasing in size as to require immediate interference to prevent its fatal extension. Combined with this were symptoms of disease of the heart—viz., patency of the mitral and semilunar valves. The pulsation ceased in the aneurism after very slight compression had been used for twenty days. This patient died suddenly, forty-eight hours after consolidation of the aneurism, and gave the following result upon examination of the limb.

"There was some slight thickening of the cellular tissue surrounding the vessel at the situation where pressure had been made, *but no change whatever in the vessel itself.*"

"The second instance occurred in the practice of Dr. Bellingham, and is thus reported by him in a communication on the subject of compression in aneurism, published in the Medical Press for October 14, 1846. After detailing the particulars of the case, as to its history, Dr. Bellingham proceeds: 'After compression had been used for some time, as the pulsation continued to be strong, it was resolved to give a trial to galvanism, combined with compression. By applying pressure upon the artery above and below the aneurism, so as to retain

the contents of the sac until acted on by the galvanic current, it was expected that one of the principal causes of failure would be avoided; the case likewise seemed a favourable one in this respect, that the blood contained a very large amount of serum in proportion to the fibrine.

" 'On the 21st of April a clamp was applied upon the artery above the aneurismal sac, and another below. Two acupuncture needles (insulated, except at their points and hafts) were then introduced from opposite sides into the aneurismal sac, and brought into connexion with a Smee's battery by Dr. Apjohn, Professor of Chemistry to the Royal College of Surgeons, who kindly afforded his services, and the galvanic current was maintained by him for about fifteen minutes at intervals. It was intended to repeat the application after a short period, and in the mean time the patient was ordered to continue compression as before.' In order, however (as he thought), to hasten the cure, he kept up strong pressure upon the artery for many hours. Seven days after employment of the galvano-puncture he was seized with severe rigor, and erysipelas attacked the part of the thigh upon which the pad of the instrument rested; it spread upwards and downwards, and the patient sunk in six days from that time.

" This patient died then of a disease which was prevalent in the hospital at that time. But will any one pretend to say that if a ligature had been placed upon the artery upon the 21st of April, and galvano-punctures subsequently applied to the sac, erysipelas would not, in an unhealthy man (as the subject of this aneurism was), have attacked the wound, or phlebitis supervened, and been equally fatal in the end? I give the case fact for fact, as it stands, and leave practical surgeons to decide as to how far it can be adduced as a reason for not resorting to compression in cases otherwise suited to this mode of cure. In my own opinion, it is no argument at all.

" Lastly, we come to No. 34. This patient was admitted into Mercer's Hospital, under the care of Mr. Read, upon the 15th of August, 1849, for aneurism of the left popliteal artery, and the details of the case have just been published in the Medical Press, by Mr. Butcher."

" Coupled with the local disease, there was severe palpitation, and dyspnœa on the slightest exertion; symptoms that were accounted for upon examination of the chest, which revealed extensive hypertrophy with dilatation of the left ventricle of the heart, open aortic valves, and tubercle in the upper portions of the right and left lung."

" This case exactly bears out what I have already adverted to, at page 44. It shows the applicability of compression to the cure of an aneurism, under circumstances where the ligature could not with safety be recommended. There was at this time, it is true, a rapidly distending aneurism, which required to be checked, but there was also a diseased condition of the heart, and tubercle in either lung —two states certainly very unfavourable for the knife.

"Compression was therefore commenced in the ordinary manner, and continued, with but little interruption, for *five months*, until the 13th of January, 1850, when it resulted in final cure of the local disease. The pulmonary affection meanwhile ran on unchecked, terminating in death, on the 19th of this month."

We may now proceed to estimate the total amount of success in all the cases at present under our notice, including the thirty-nine given by Mr. Tufnell, and fifteen in our former series[a]. Of these fifty-four cases, forty-one, or seventy-five per cent., were cured (and we would venture to say that, by selecting cases in every way suitable, cent. per cent. would be cured); one died; but, as we have just seen, this death cannot by any means be put to the account of compression; and of the remaining twelve the ultimate termination cannot, in a single instance, be considered directly connected with the employment of this mode of cure. With regard to the duration of the compression, it has been found to vary within very remarkable limits: thus, in one case, the contents of the sac were solidified, and consequently the main feature of cure accomplished, in *seven hours and a half;* while in these cases which must be regarded as in every way exceptional, the treatment occupied respectively ninety-three, seventy-two, and seventy-days: but, even including these high figures, Mr. Tufnell has deduced the average period as twenty-five days.

These are results to which we can confidently point as promising a brilliant career for the treatment of aneurism by compression. Sanguine as its advocates may be, however, there is not one who will pretend to say that it is applicable under all circumstances, or can be indiscriminately employed. No; discrimination must be exercised with regard to the cases in which we apply it, if we would hope to succeed by its aid; while again, subordinate as the consideration may appear at first, the instruments employed, and the judicious use of them, are eminently connected with a favourable result. For ample details on both these heads, we have great pleasure in referring our readers to the work under consideration. The directions will be found copious, lucid, and well arranged. We cite the following as an example:

"You may ask me, then, what are the cases in which I recommend pressure, and what those where I would resort to the knife? I will tell you.

[a] The publication of Mr. Tufnell's work at so short a period before our going to press has alone prevented us from prosecuting a further search through the different British and foreign periodicals, so as to complete these tables up to the present time.

"I *consider compression applicable* to every ordinary circumscribed aneurism in an extremity, where there is sufficient room for the application of the compressing medium at two different points above the tumour, premising, of course, that pressure on the trunk of the vessel completely controls pulsation in the sac, thus proving that no high bifurcation exists.

"*I do not advise* it in cases which are rapidly extending in size, or where they continue to do so after compression has been tried. These aneurisms have no distinct sac; and to afford any chance of saving the limb, the blood through the main channel *must be cut off, and at once*, by securing the vessel.

"*I do not advise or sanction it* in cases where the disease has been allowed to run on unchecked, where the limb has become œdematous and swollen, and the surface of the aneurism a dusky, yellowish red. In such a case the vein is most probably engaged, and, if it be a popliteal aneurism, the knee-joint inflamed. Here, I believe, amputation is the only resource.

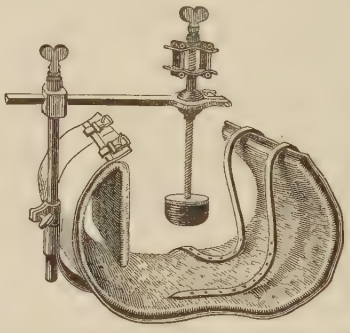
"Understand me, then: compression I advocate only in cases where the sac is entire, and where sufficient room exists for applying the pressure on two points of the artery above. At the same time, cases have so frequently occurred where the application of a single instrument has been sufficient for a speedy cure (*such, for instance, as one that I saw under the care of Dr. Hutton, where popliteal aneurism of a considerable size was in seven and a half hours, by means of a single instrument, constructed on Dr. Carte's plan, rendered completely solid*), that, although, for prudence sake, *and as a general principle*, I advocate the employment of two points of pressure, yet I by no means hesitate to employ a single instrument, and give the patient every chance, prepared at the same time to use the ligature if any necessity arise."

A most valuable adjunct to the employment of well-directed pressure will be found in the use of suitable constitutional means. Of this fact, two highly illustrative cases have already appeared in our pages[a] from the pen of Dr. O'Ferrall, which clearly show that different and even *opposite* methods of constitutional treatment are required in different cases. Thus, in one instance, a bleeding to the extent of twelve ounces, and the exhibition of ten drops of tincture of digitalis three times a day, were indicated, and adopted with marked benefit, whilst a chalybeate treatment was no less conducive to the favourable termination of the other case.

The instruments employed next demand our attention. The history of this portion of the subject, as detailed by Dr. Bellingham, is extremely interesting. From the *ponton* of l'Abbé Bourdelot, invented by and successfully used on himself

[a] Vol. ii. N. S. p. 372.

for the cure of a wound in the brachial artery, to the elastic compressor now in use, the greatest variety will be found as to the mechanical means employed. Mr. Tufnell has presented us with excellent lithographs of those which have been employed at various intervals in Dublin, the earliest of which is that of Mr. Todd's invention. But it cannot admit of doubt that they are all destined to be superseded by that which has been so usefully modified by Dr. Carte. The accompanying



wood-cuts[a] give an excellent representation of the pelvic apparatus, and also the circular thigh compressor, now in use in Dublin. A simple inspection of these drawings will enable any one to recognise the principles on which the instruments work, the numerous facilities for easy adjustment, and the simple but eminently useful additions of vulcanized caoutchouc bands, which give to the pressure a high degree of elasticity.

With regard to the application of the first point of pressure, Dr. O'Ferrall has thrown out some useful hints. His researches tend to show the superiority of *pressure at the groin* over that applied in other situations for the cure of popliteal aneurism. He says:

"In considering the anatomy of the parts, it appears very probable, that when compression is made high up, the vein may be avoided, while such an exemption would be quite impossible lower down, where the vein slips behind the artery, and must of necessity receive its share of the pressure. The possibility of avoiding the vein, while compressing the artery at the groin by the finger, may be ascertained by any one who takes the trouble to make the experiment with care. I have demonstrated this repeatedly to the class, and shown the alter-

[a] For the use of these wood-cuts we are indebted to Messrs. Fannin and Co., of Grafton-street, the manufacturers of the instruments, as improved by Dr. Carte.

nate interruption to the current through the artery, and the turgescence of the saphena, made at will, according as the finger was shifted from one vessel to the other."

"It is obvious to the least reflection, that effectual pressure at the groin cannot be made in the direction of a line dropped perpendicularly to a limb in the horizontal position. It must be made in a direction upwards and backwards in order to compress the artery against the pubis. And as the angle at which this force is to be directed will change with every new subject, or in the same subject at different times, it becomes necessary to devise a power of altering the inclination according to circumstances."

For further practical directions as to the methods of applying the pressure alternately, the manœuvres to be adopted, and the precautions to be used, we must again refer to Mr. Tufnell. Want of space alone prevents us from entering more at length into this important subject; but, in recommending his work to the notice of the profession, we feel that, as far as verbal description can supply information, it will be found practically useful. We must also add, that the lithographs of the various instruments which accompany it give faithful and clear representations of them.

Before finally closing our too brief notice of this highly important topic, a sense of duty compels us to take a rapid survey of the manner in which the recent efforts of the Irish school to revive the treatment of aneurism by compression have hitherto been received in the sister kingdom and on the Continent. In London, so early as 1843, it had secured the advocacy of Mr. Liston. In 1847, Mr. Crisp says:—"I have no doubt but that this method of treating aneurisms of the femoral and brachial arteries will, after a few years, be universally adopted; and a surgeon will not consider himself justified in using the knife, until pressure has had a fair trial." We have seen that a very eminent authority of the same school has recently pronounced in favour of compression in no qualified terms. In many provincial towns of England its success has been attested by experience. In Edinburgh, Mr. Miller, in his recent Principles of Surgery, speaks of its value with candour and justice, and draws a comparison between the results which have been thus already obtained, and those by the ligature. But, in the same city, it has met an antagonism as formidable as its author is able and eminent. Though we do not consider that the treatment of aneurism by pressure has received at the hands of Professor Syme that calm and dispassionate reception to which it is entitled from every scientific man, far be

it from us to impeach his good faith, or attribute his incredulity to anything save an imperfect examination of the evidence adduced. We doubt not that, when these pages meet his eye, or when he shall have perused the evidence so well drawn up by Mr. Tufnell, he will see full reason to put the subject to a practical test. Are we to take it as an indication that his steps are already turning towards us, that his recently published observations on clinical surgery contain an account of a case of radial aneurism cured by pressure? The remarks appended to the report are worthy of attention.

"A few weeks ago, as I was leaving the hospital," says he, "a man, apparently somewhat under thirty years of age, showed me a tumour, about the size of a flattened gooseberry, at the root of his thumb, and said that ligature of the artery at the wrist had been advised for its remedy. The swelling looked so much more like a ganglion than an aneurism, that I supposed there must have been a mistake as to its nature; but, upon a more attentive examination, finding that there was a distinct expansive pulsation, I could not doubt that there was a sac communication with the radial artery, pressure upon which instantly lessened the swelling, and deprived it of the pulsating character. I therefore had a little spring constructed, upon the principle of a rupture truss, so as to press upon the vessel at the wrist, and at the end of twenty-four hours after it had been applied could not detect any trace of pulsation."

"It may appear to you inconsistent in me to apply pressure at the wrist, instead of tying the radial artery, as I have strenuously contended against the substitution of pressure for ligature of the femoral artery. But the two cases are very different, since the latter-mentioned vessel has accompanying it the great venous trunk of the limb, which the utmost extent of human skill and care cannot prevent from being compressed along with the artery, and necessarily occasioning a degree of suffering to the patient, which must, if at all prolonged, infinitely exceed the trivial disturbance which attends ligature of the artery,—while the radial artery lies directly under the skin, rests upon the bone, and has no associate disposed to resent the effect of compression. I may add, that it has always been an established principle with me, that the radial artery and its branches at and below the wrist are completely under the command of pressure"[a].

Now, Professor Syme, we appeal to you, as a surgeon and a gentleman, is this fair dealing with the salient points of the

[a] Monthly Journal of Medical Science, 1851, page 369.

question at issue? What! "The radial artery lies directly under the skin, rests upon the bone, and has no associate disposed to resent the effect of compression." No tyro in anatomy can be ignorant that the radial has *two* venæ comites, and as for their disposition to resent injury, we are not in a position to answer whether it be greater or less than that of any other satellite vein under similar circumstances. But there cannot be a shadow of doubt that it is far more easy to isolate the femoral, as it lies on the ilio-pubal eminence, on the same plane and external to its own vein, and with a fascial septum intervening, than the radial, or even the brachial. *Sæpe de lanâ caprinâ rixatur.* We would recommend to Professor Syme a perusal of the account of the anatomical examination of the vessels in Mr. Tufnell's three cases, and the following observations appended thereto:

"Thus it is in my power to show, that in none of these cases was there any injury whatever inflicted upon either artery or vein at the points where compression was applied. Such has been stated to have occurred, and the vein has been described as having been rendered 'white, thick, and patulous;' but none such existed here, nor do I believe it likely that this ever will happen under the use of that degree of pressure which we know is sufficient for cure, and beyond which it is unnecessary to go."

We shall, in fine, proceed to examine in what manner this subject has been considered by continental surgical authorities. We have such faith in the candid and impartial spirit of laborious inquiry which has ever characterized the researches of M. Cruveilhier, that we are confident it can be only an accident of the most unaccountable kind that could have prevented his meeting with the records of the cases in which this method had been successfully employed previously to the publication of the first volume of his *Traité d'Anatomie Pathologique Générale* in 1849.

The brief remarks which will be found at p. 290 of the great work alluded to, show that the subject had not at all received that amount of consideration at his hands, to which we feel confident he will now admit it is entitled. He says: "The compression of arteries by a tourniquet placed above the seat of aneurism has been abandoned as a method of treatment in those maladies, in consideration of its insufficiency to arrest the current of blood in the aneurismal sac." The subject is thus dismissed, but we are sure it will henceforward receive from this illustrious pathologist a more careful investigation.

In the pages of the "Jahresbericht," from which we have already so extensively quoted in a previous review, will be

found a very favourable report of the principal contributions to the literary history of this subject[a]. The reporter is Lœbel, and, after a full examination of the cases, which are almost entirely drawn from Irish sources[b], he concludes with the following observations:—"In short, compression possesses all the advantages of the ligature, without any of its disadvantages, and the latter will soon find a place only in the *history of surgery*."

Queen's University in Ireland.—Calendar of Queen's College, Cork. Dublin: Hodges and Smith. 1851. Post 8vo. pp. 177.

Queen's University in Ireland.—Calendar of Queen's College, Galway. Dublin: Hodges and Smith. 1851. Post 8vo. pp. 106.

Following the example of their elder sister, the University of London, the three Queen's Colleges in Ireland have each published, this year, their first Calendar, two of which, those of Cork and Galway, are now before us. Of the manner in which they are brought out we cannot speak in terms of too high praise; indeed, of this, the fact of their having been published by the house of Hodges and Smith is sufficient evidence. A nearly similar arrangement is followed in both. They contain a College Almanac, in which the term days, &c., of the various departments, are given; an account of the foundation and constitution of each College; the charter of the Queen's University in Ireland, with the names of the first council, and the ordinances for university degrees; the plan of instruction pursued in the Colleges; the different faculties of the educational departments; the special courses of instruction; the College fees; the scholarship courses, and the names of those who have hitherto obtained scholarships; the prizes, and the names of the successful candidates; notices of the libraries and museums; &c., &c. And at the end selected Examination Papers for 1850 are appended. Each volume thus comprises a vast amount of information, most carefully put together; and in their publication we cannot avoid foreseeing the great influence which the provincial Colleges must, in a very few years, have in promoting the literary advancement of our country.

[a] Canstatt's Jahresbericht, Dritter Band, p. 199.

[b] Amongst the continental writers who have published on this subject we find the names of Frayes of Ghent, Sedillot, &c.

PART III.

REPORTS, RETROSPECTS, AND SCIENTIFIC INTELLIGENCE.

PROCEEDINGS OF THE PATHOLOGICAL SOCIETY OF DUBLIN.

ELEVENTH SESSION.—1850–51.

Disease of the Aortic Valves.—Dr. Banks detailed the case of a man, aged 47, who was admitted into the Whitworth Hospital on the 31st of December last. He stated that for ten years previous to his admission, he laboured under occasional "attacks of cough;" in fact, he had never passed a winter without having an attack of bronchitis, and even in summer he was not perfectly free from cough; at no period had he spat up blood. For twelve months before his admission, he laboured under occasional palpitations of the heart, with difficulty of breathing, upon even the slightest exertion. He had unpleasant dreams, so that he frequently started in his sleep, under the impression that some calamity was impending. A short time before the patient came under Dr. Banks' observation all these symptoms became aggravated. His breathing was exceedingly oppressed, and he suffered from violent palpitation of the heart, and a disposition to faint. He had what he called "rheumatic pains," but it could not be ascertained that he had ever laboured under acute rheumatism. When he was admitted into the hospital, his condition was that of extreme suffering and prostration. He could only breathe in the sitting posture, and occasionally had severe paroxysms of dyspnœa. On examining the chest by percussion, it was found perfectly resonant over its whole extent anteriorly; there was no cardiac dulness; posteriorly it was also resonant, with the exception of the base of the right lung, which, though not positively dull, was slightly so, as compared with other parts. The dry bronchitic sounds, ronchus and sibilus, were audible over nearly the whole extent of the chest, but at the base of the right lung there was a coarse muco-crepitating râle. It was impossible on his admission into hospital to make a satisfactory examina-

tion of the sounds of the heart, so loud were the bronchial râles, and so utterly impossible was it for the patient to hold his breath, even for a second. In three or four days the symptoms were in some measure mitigated, and then, on examining the heart, a loud endo-cardial murmur was audible at the base, completely obliterating the normal second sound. Three or four days before his death, although there was no diminution of the physical signs, he was enabled to lie down and get some sleep in the recumbent posture. He gradually sank, and died eight days after his admission. The patient presented during life all the symptoms indicating patency of the aortic valves; and, following the rules laid down by Dr. Corrigan, there was no difficulty in arriving at a correct diagnosis of the disease.

Autopsy.—On opening the chest, the lungs were found completely overlapping the heart, though there was enormous hypertrophy of that organ; there was no cardiac dulness, not even to that extent generally met with in healthy persons; there was a considerable amount of congestion of the lungs, and emphysema existed at their superior edges; they contained a considerable quantity of serum. Serum was also present in the pleuræ, which must have been effused within a few hours before death. The heart was observed to occupy nearly a horizontal position, a circumstance connected with imperfection of the aortic valves, to which Dr. Corrigan had directed the attention of the Society. It was enormously hypertrophied, the hypertrophy and dilatation being confined to the left ventricle. The semilunar valves of the aorta were found perfectly inadequate for the performance of their functions, for, on passing a stream of water into the aorta, it was found to flow readily into the ventricle. The whole extent of the thoracic and abdominal aorta presented the traces of disease of long standing. The aorta was dilated, and the lining membrane was rough from atheromatous and calcareous depositions. The chief point of interest in the case was the fact of the patient's improved condition a few days before death, though the disease was steadily advancing; and, on being questioned as to his sensations, he expressed himself as feeling more easy and comfortable than he had been for many weeks.—*January* 11, 1851.

Acute Inflammation of the Medulla Spinalis.—Dr. M'Dowel described the following case of this affection. Mary Livingston, of dissolute and intemperate habits, was admitted into the Hardwicke Hospital on the 4th December, 1850. She stated that about ten days before her admission she had been beaten severely about the head and back, and otherwise ill-used, while in a state of intoxication (a large bruise on the left temple corroborated her statement), that on the next day she suffered from severe pain in the region of the back and loins, and in the evening that she had a shivering fit, and sickness of her stomach, followed by the other ordinary sensations of fever. On admission, her countenance was sallow and anxious. She complained of pains all over her body, but particularly in the spinal region. The abdomen was tender to the touch,

but the cutaneous surface generally was likewise morbidly sensitive. The muscles of the nape of the neck were very rigid, and the motions of the head were limited. There was some sickness of stomach; skin hot; pulse 95, but small. These symptoms continued with very little variation for the next three days. On the 7th December she seemed much better and more free from pain, but there still remained morbid exaltation of the cutaneous sensibility, a rigid condition of the muscles of the nape of the neck, and irritability of the stomach. On the 11th December her symptoms were aggravated; she slept very little; had frequent vomiting, profuse perspirations, and great tenderness of the spine; her pulse was 108. On the 13th, convulsions suddenly supervened; the fits, which were of an epileptic character, lasted for about five minutes at each time, and in the intervals she had some broken sleep. The convulsions recurred with great frequency during the next two days, and there was partial suppression of urine. From this period up to the 19th, when death took place, the same symptoms continued. Her senses remained unimpaired until about twelve hours before death, at which period the pulse ceased to be perceptible at the wrist. There was no paralysis, nor sloughing of any part. Dr. M'Dowel remarked that it was evident, from the symptoms of this case, peritoneal inflammation was present, but there were also in a very marked degree the symptoms usually attributed to cerebro-spinal meningitis, that is to say, there was excessive sensibility over the surface generally, a peculiar rigidity of the extensor muscles of the head, which limited its motions, and, lastly, there were convulsions, which so frequently occurred in the advanced stages of that disease.

Autopsy.—Peritonitis to a limited extent was present; the ovaries were extensively disorganized, they were sacculated, and the cysts were filled with strumous matter mixed with blood. A large abscess existed in the region of the uterus, between its upper fundus and the rectum, and bounded by the bladder in front; but it did not communicate with any of the organs which surrounded it. Acute peritonitis was found in the hypogastric region. The contents of the spinal canal were next carefully examined, but none of the appearances of meningitis were found; the dura mater was healthy. When it was divided, a good deal of serum flowed out, which was clear and limpid, and was regarded merely as an augmentation of the sub-arachnoid fluid. The arachnoid membrane was perfectly healthy, nor was there any exudation of lymph between it and the pia mater, which has been so invariably an accompaniment of spinal meningitis. In point of fact, there was no inflammation whatsoever of the membranes of the spinal cord; but on cutting into the interior of the medulla spinalis abundant evidences of disease were found, as illustrated by the drawing which accompanied the specimen. The medulla spinalis was extremely vascular, its substance being everywhere pervaded by numerous red-coloured vessels arranged in an arborescent manner. The nervous mass was also diminished in consistence, being manifestly softer than natural, especially in its lum-

bar and dorsal portions; it was far, however, from being reduced to a pulpy or creamy consistence, and to this circumstance, perhaps, was attributable the absence of paralysis.

"In conclusion," Dr. M'Dowel remarked, "when we review the history of this case, we find the symptoms of cerebro-spinal meningitis fully developed, without there being found after death any traces of meningeal inflammation. In this instance, convulsions and muscular rigidity, which Lallemand considers as almost peculiar to inflammation of the membranes of the nervous centres, and morbid exaltation of the cutaneous sensibility, which Ollivier confidently regards as pathognomonic of spinal meningitis, were associated, not with meningitis but with myelitis, or inflammation of the substance of the cord, whilst paralysis of the voluntary muscles, which usually accompanies this latter affection, was wanting. This was a fact worth placing on record, but he did not wish it to be inferred from this that he imagined the symptoms of spinal meningitis were not clearly established. The inference which he thought might fairly be deduced from the case he had detailed was, that the peculiar symptoms which all experience has proved to accompany spinal meningitis, owe their existence, not to any intrinsic peculiarity in the fibro-serous spinal membranes, whereby they differ from other similar structures, but to the circumstance that inflammation of them is propagated to the adjacent or subjacent portion of the nervous centres; or, in other words, that there would be no symptoms characteristic of inflammation of the spinal arachnoid, were it not for the contiguity of that structure with the great mass of nervous substance which it surrounds."—*January* 11, 1851.

Fatty Degeneration of the Kidney.—Dr. Lees said, the specimen which he wished to bring forward for the consideration of the Society possessed interest, not merely with reference to morbid anatomy, but as an example of the sympathy which exists between the stomach and kidneys. It was taken from a man aged 47, of intemperate habits, who was admitted into the Meath Hospital, some months since, under his care. He came to the hospital, complaining chiefly of constant vomiting. He stated that he had vomited blood about twenty years ago, and ever since he has been subject to vomiting of an acid greyish fluid, generally in the morning, and accompanied by severe headach. He seldom vomited after breakfast, and for a long time he has been liable to slight attacks of hemoptysis. On admission, he presented a very emaciated, pallid appearance; he had no appetite; his bowels were greatly confined; he suffered from constant headaches. There was some tenderness on pressure over the epigastric region, which was slightly distended and tympanitic; and he had slight mucous expectoration. So far the symptoms tallied with the existence of some complaint of the stomach. On making further investigation, it was found that he suffered occasionally from pains in the lumbar region, but that he never observed anything wrong with his urine in quantity or in appearance. However, on examination it was

found to be very pale in colour; specific gravity, 1010, although a natural quantity was passed. No deposit or sediment appeared in it; but on testing it by heat and nitric acid, the presence of albumen was evidenced; the quantity of urea was also very small, much below the natural quantity. Upon placing it under the microscope there were visible one or two epithelial cells, mixed with oil-globules. From the examination of the urine, the conclusion was come to that it was a case of degeneration of the kidney. Very soon after this, Dr. Lees' term of duty at the hospital expired, and from that period he lost sight of the case, until he was one day going round the wards of the South Dublin Union Poor-house, when he recognised his former patient. He was then very much worse. Dr. Mayne soon after kindly acquainted Dr. Lees with the fact of his death, and he was thus enabled to obtain the present preparation.

Autopsy.—On examining the body, which was greatly emaciated, the stomach was found to be slightly distended, but otherwise perfectly healthy; there was no sign of disease apparent in it. The liver was slightly fatty. In the lungs there were some small fibrinous deposits, remains, apparently, of pulmonary apoplexy. Both kidneys were enveloped in a quantity of adipose tissue, the enormous quantity of which was still to be seen, although the kidneys had been kept in spirits of wine. The surface of the kidney was also peculiar; it presented a good specimen of granular degeneration; it was of a dirty greyish colour, and presented that stellated appearance which is so constantly found in this condition of the kidney. On making a section of the organ, the cortical structure presented a peculiar waxy shining appearance, and the interior of the kidney was found to be almost completely occupied by fat. In fact, between the internal structure of the kidney and the membraneous reservoirs it was completely filled with fat. On placing a section under the microscope, the epithelial cells and annulated tubes were seen to be completely gorged. It might be mentioned Dr. Lees remarked, that this kidney had several times to be changed from the spirit in which it was put, in consequence of the quantity of oil floating upon the surface. The case tended to bear out the theory of Dr. Johnson, of London, and confirms some physiological experiments which he made along with Mr. Simon, in which it was found that, in an early stage of fatty kidney, plenty of oil-globules could be detected in the urine; but as the disease advanced, the oil-globules disappeared, and then albumen made its appearance: so in this case, though the kidney was found to be loaded with fat, yet scarcely any oil-globules appeared in the urine.—*January* 11, 1851.

Fungus Hæmatodes of the Thigh.—Professor R. W. Smith detailed the following case, and exhibited the recent specimen, together with a cast of the limb.

Frederick Unkles, aged 22, was admitted into Sir Patrick Dun's Hospital, in the month of November, with a tumour involving the

right thigh, from the knee to within four inches of the groin, of the origin and progress of which he gave the following brief account. One year and a half ago, at Bath, he first noticed it; it was then nearly as large as an orange, and placed at the inner and lower part of the thigh; it was freely moveable, and caused neither pain nor inconvenience of any description, until he happened to strike it against a lamp-post; it then became painful, and increased in size, in consequence of which he showed it to several medical men in Bath, and amongst the number to Dr. Norman. He told him, that unless he underwent amputation, the tumour would give way, and that he would bleed to death in a short time. He then went to London, and placed himself under the care of Mr. Bransby Cooper, in Guy's Hospital. That gentleman punctured the tumour upon more than one occasion; blood alone flowed from the wounds: amputation was then proposed to be performed, but the patient would not give his consent. He left the hospital in about two months, came over to Ireland, and was admitted into Sir Patrick Dun's Hospital, under the care of Dr. Law, in November last, previously to which the tumour had grown considerably, and, at the period of his admission, measured twenty-seven inches in circumference. It was of a uniform globular shape; its limits were clearly defined above, but below it was difficult to say whether it involved the knee-joint or not; its surface was very slightly discoloured, but everywhere traversed by largely dilated veins. Several of these venous trunks were nearly as large as the femoral vein, and seemed to be lodged in sulci left for them upon the surface of the tumour, and sufficiently large to admit of the little finger being placed in them edgeways. The consistence of the tumour was tolerably uniform throughout; it was free from pain, but the patient complained of an unpleasant sensation of heat in it. There was no enlargement of the inguinal glands; he had neither cough nor acceleration of pulse; he was not emaciated, nor did his general appearance or complexion indicate in any marked degree the presence of malignant disease in the system; the functions of the digestive organs were executed with regularity: in short, there was no constitutional disturbance. During two months succeeding his admission, nothing worthy of notice occurred, with the exception of a steady increase in the size of the tumour, so that it ultimately measured nearly a yard in circumference. About the middle of January, however, the tumour became prominent at its inner and lower parts, the skin thin and discoloured, and the usual deceptive feeling of fluctuation was communicated to the finger of the examiner. The poor boy, who was of a most reckless and thoughtless disposition, looked forward with high hopes to the giving way of the integuments. He said that when Mr. Bransby Cooper punctured the tumour, nothing but blood came; but that now it was nearly ripe, and that, when the skin gave way, there would be a copious discharge of matter, and that the tumour would then disappear. An effort was made to undeceive him, and he was told, that when the integuments ulcerated, the discharge would consist

principally of blood; but he ridiculed the idea, and the thinner the skin became, the higher his hopes rose, and the nearer he considered himself to be to a happy termination of his formidable disease. Towards the end of the first week in January, however, matters assumed a different aspect; the attenuated skin at length gave way, and a discharge of blood took place. Immediately a great change came over him; his reckless bearing disappeared, and he passed into a state of great excitement, from the fear of approaching death from hemorrhage. There was no necessity now to propose to him the amputation of the limb; he was himself but too anxious to have it performed; and when he found that all the surgeons who were at different times called into consultation upon the case were opposed to the operation, his excitement reached its utmost, and he made use of expressions calculated to produce the impression that he meditated self-destruction. Upon one occasion he handed a slip of paper to Dr. Law, upon which he had written, that he had some money in the savings bank, and that he would give him £5 if he would have the operation performed; but it was again and again explained to him that the removal of the limb afforded no prospect of saving his life, and that, even if he escaped the immediate danger of death from hemorrhage upon the operation-table, the disease would soon re-appear in some internal organ; and yet neither at this time, nor at any former or subsequent period, was there any symptom of visceral disease. The case now proceeded rapidly to its fatal termination. There was a continual discharge of fetid sanious matter from the ulcerated portion of the tumour, and almost daily a fearful gush of blood took place. Three days before his death he became composed, tranquil, and resigned; the tumour had ceased to enlarge since the formation of the opening upon its surface, but the opening itself had attained a considerable size, being five inches in diameter; the integument which formed its margin was thin and livid, and the surface exposed by the ulceration was made up, apparently, of sloughing encephaloid tissue, and decomposed blood. The smell was intolerably offensive, and the floor beneath the bed was clotted with blood, which was continually falling in thick heavy drops, having soaked through the bed-clothes and the mattress. His face was wan, his countenance haggard, his eyes and cheeks sunk, the surface pale and bloodless, and the limbs œdematous; he had palpitations of the heart, and a rapid and feeble pulse. A few days before his death he complained of pain in his right side, but, attributing it to a slight and accidental cold, he did not make use of the means proposed for his relief. He died on February 24th, not quite three weeks after the surface of the tumour had ulcerated.

Examined after death, the interior of the tumour presented the usual appearance of encephaloid disease; the structure of the morbid growth was remarkably soft throughout, and in some places semi-fluid; numerous masses of extravasated blood were scattered through it; a considerable portion of the femur was destroyed, but the knee-joint did not appear to have suffered. The posterior me-

diastinum contained several encephaloid tumours, some of which were as large as a hen's egg. Similar tumours of small size existed upon the surface of the lungs, beneath the pulmonary pleura.

Malignant Tumour of the Orbit.—Professor R. W. Smith exhibited a recent specimen, together with a series of casts and drawings, of a malignant tumour placed at the roof of the left orbit, and protruding into the cavities of the orbit and cranium. The subject of the case, a man aged 45, was for the first time seized with a sudden pain in the situation where the tumour subsequently appeared, in August, 1850. After the lapse of one month, the tumour began to show itself externally beneath the superciliary margin of the orbit; it rapidly enlarged, and depressed the globe of the eye, which was soon completely covered permanently by the upper lid, and about the same period the patient lost the faculty of vision in the left eye. In the month of October an abscess formed at the inner canthus of the right eye, upon the escape of the matter contained in which, by ulceration, the patient was able to see with the left eye. The most remarkable symptom throughout the progress of the case was extreme emaciation. There were not, at any time, symptoms of pressure on the brain, or of any cerebral irritation, with the exception of the temporary loss of vision in the eye of the affected side. The man died three months after the first appearance of the disease.

Post Mortem Examination.—The tumour appeared to have originated in the roof of the orbit; its surface was covered throughout a great portion of its extent by a delicate layer of bone, and its interior divided into numerous small cavities by thin osseous laminæ. The spaces thus enclosed were filled with cerebriform matter. The tumour had passed into the cavity of the cranium and filled a large portion of the left side of the anterior fossa of the base of the skull; it was here covered by the dura mater, and had formed by its pressure a deep concavity in the corresponding portion of the anterior lobe of the brain. It had also passed the middle line, destroyed a part of the cribriform plate of the ethmoid bone, and implicated a portion of the right orbit, passing through its roof near the inner canthus. The most remarkable features of the case were the rapid progress of the disease, the temporary loss of vision in the left eye, and extreme emaciation of the patient. For the opportunity of exhibiting the specimen, Professor Smith was indebted to Dr. Kirkpatrick, who had accurately observed the case during its entire duration, which extended over the short period of three months.—*March* 1, 1851.

REPORT

ON THE PATHOLOGICAL MUSEUM OF THE BELFAST MEDICAL SOCIETY.

BY A. G. MALCOLM, M. D.,

ONE OF THE VICE-PRESIDENTS OF THE SOCIETY.

(*Continued from p.* 214.)

The present portion of this Report comprises a brief account of twenty-one illustrations of disease received into the Museum since the 1st November, 1850. These may be conveniently arranged as follows :

DISEASES OF THE BRAIN.

1. Prep. 206, Recent apoplexy; presented by Dr. Malcolm.
2. „ 207, Red ramollissement, „ ditto.
3. „ 217, Apoplectic cyst, „ ditto.
*4[a]. „ White ramollissement, „ ditto.

DISEASES OF THE LUNGS.

5 & 6. Preps. 212 & 213, Phthisis pulmonalis; presented by Dr. Lynch.
7. „ 214, Apoplexy of the lung; presented by Dr. Malcolm.
*8. „ Sanguineous pleuritic effusion, occurring in the practice of Dr. Mateer.
9. „ 215, Pneumonia in its various stages; presented by Dr. Malcolm.

DISEASES OF THE HEART.

10. Prep. 216, Mitral valve disease; presented by Dr. Malcolm.
11. „ 218, Aortic valve disease, „ ditto.
12. „ 219, Extreme dilatation of the left ventricle, and lesion of aortic valves; presented by Dr. Pirrie.

MISCELLANEOUS.

13. Prep. 209, Medullary tumour of orbit ; presented by Mr. Browne.
14. „ 223, Polypus of the ear; presented by Mr. Browne.
15. „ 210, Polypus of the uterus, presented by Dr. Malcolm.
16. „ 211, Exfoliation of the lower jaw; presented by Mr. Lamont.
17. „ 225, Skull of an idiot; presented by Mr. Browne.
18. „ 224, Synovial lesion, presented by Dr. H. Stewart.
*19. „ Cirrhosis of the liver,
*20. „ The brain, in a case of typhus, } Various.
*21. „ Stricture of the colon,

[a] The specimens marked thus (*) were not preserved.

I.—Recent Apoplexy.—The following is the history of this case:—John Little, a robust quay labourer, aged 55, was found by the police one evening lying insensible in the street. He was immediately carried to the General Hospital, in a state of total insensibility. On examination, there was distinct hemiplegia of the right side. Pulse 84, and of moderate strength; respiration stertorous, and iris immoveable. He was bled at once, and the vein kept open so long as any blood would come. There was very slight rallying; but he made efforts, apparently, to speak, and evinced other tendencies of returning sensibility. The depletion not having produced any decided result, ten grains of calomel and a turpentine enema were administered, and sinapisms were applied on various parts of the body, to arouse the nervous energy: all without benefit. He sank in sixteen hours; and, on examination, the brain presented the following appearances: an enormous clot was observed occupying the site of the corpus striatum in the *left* lateral ventricle, fully of the size of a ball one inch and a half in diameter. On section it presented coagulated blood to the depth of half an inch, and, deeper, a mixture of medullary matter and fluid blood, clearly evidencing the violence of the sanguineous effusion that must have occurred. The entire ventricle was distended by the unusual pressure; the right ventricle was normal, but the pia mater externally was generally congested.

II.—Red Ramollissement of the Brain.—Thomas Lundy, aged 42, a nailer, had enjoyed tolerable health until three months before admission into hospital, when he began to complain of a troublesome cough, and soon afterwards of pain in the hepatic region, and, more lately, has been annoyed with a frequent headach and constipation. Precisely three days before admission, he was seized with pain at the elbow-joint and breast, and almost immediately afterwards with paralysis of the *left* arm. Vomiting ensued on the following day, and at 4 o'clock, A. M., on the day of admission, the patient became suddenly insensible, and complete loss of power of the entire of the left side ensued. Sensation remained unaffected; the tongue was coated, and protruded towards the left side; there was inability to close the left eye completely; the chest lesion was simply bronchitic. He was cupped at the nape of the neck, a pill of calomel and ipecacuanha administered every six hours, and mercurial ointment rubbed in. Diarrhœa ensuing, the calomel was soon discontinued. On the fifth day he was seized with convulsions of the right arm and eye-ball, which were soon succeeded by complete hemiplegia of this side likewise. He was now unable to speak or move. The bodily emanations became cadaverous in odour, and on the eighth day he expired.

Post Mortem Examination.—The body was examined eight hours after death. On removing the calvarium and the dura mater, general cerebral congestion was observed. There was a slight excess of arachnoid and ventricular effusion. In the centre of the right hemisphere, and about one inch from the lateral surface, there was a distinct

patch of red softening, surrounded by the white form; in all, a space of about two inches square was affected at this point. At the posterior part of the left hemisphere, there was observed a minute spot similarly affected. The liver was large and soft, but otherwise normal; and the lungs and heart were healthy. The stomach and intestines were not examined.

III.—Apoplectic Cyst, &c.—Catherine Dougherty, aged 40, was admitted into the General Hospital on October 2, 1850, with hemiplegia, of three months' duration, of the left side, and with chest symptoms indicative then merely of bronchitis. In two weeks from this date, the state of the lungs became considerably aggravated. Dyspnœa, paroxysms of cough, and bloody expectoration, simultaneously ensued, and shortly afterwards spots of purpura appeared on the feet, legs, and arms. When examined on November 5th, these spots had disappeared, but the hemoptysis continued, attended with distinct signs of pneumonia at the base of the left lung, while the first sound of the heart was clearly roughened and prolonged; and for several days prior to her death, which took place on the 7th, œdema of the paralysed limbs and side was observed. The treatment was altogether palliative, as, owing to the complicated lesions, nothing seemed capable of effecting any but temporary relief.

Post Mortem Examination.—Anteriorly, in the right hemisphere of the brain, close to the cleft of the anterior and middle lobes, a distinct cyst, of the size of a large walnut, was seen, filled to distention with a serous fluid of a pale straw-colour. There was some trifling general congestion of the pia mater, but in other respects nothing presented to occasion remark here. In the right lung, several balls of coagulated blood, enclosed, cyst-like, in areolar tissue, were observed in different parts, constituting one of the forms of pulmonary apoplexy, so called. The tissue of this lung was generally healthy. The left lung was pneumonic throughout, the stages of congestion, red hepatization, and minute ulceration, being well marked; there was, besides, extensive pleuritic effusion,—in part fluid and in part coagulated lymph. The mitral valve was thickened, and the orifice contracted; there were no vegetations, and the substance and other parts of the heart were normal; the liver was of the yellow, mottled appearance observable in incipient cirrhosis; the uterus presented externally two fibrous tumours of small size, and a cellular polypus with a pedicle two inches in length, springing from the interior. The remaining viscera were healthy.

IV.—White Ramollissement of the Brain.—This case occurred in the person of James Rogers, a shoemaker, aged forty years, who came over from Glasgow to Belfast on the 6th of July, 1850, to look for employment. He arrived in the morning, drank a little with his acquaintance during the day, and went quietly to his bed about 9 o'clock, p. m. On the following morning, on awaking, he was surprised to find himself without the power of speech, as he had no premonitory symptom whatever. Such was the report of a friend. He was admitted into the General Hospital on the 8th, still dumb,

and unable to protrude the tongue. His expression was stupid and idiotic; the pulse perfectly quiet, and the bowels free. A blister was applied to the nape of the neck, and calomel was administered in minute doses every three hours. On the 10th he attempted to utter some words, but only made a few inarticulate sounds. The gums were this day affected. On the 13th, the pulse was 112, and feeble. Diarrhœa and some imperfect paralysis of the right side were added to his previous symptoms, while his idiotic condition of mind became more and more confirmed. On the 15th, the hemiplegia was complete. A small cupping from the nape of the neck was ordered, and on the following day he regained so much power as to enable him to leave the bed. The improvement was, however, merely temporary. The diarrhœa continued unabated, and on the 17th he expired.

Post Mortem Examination.—The brain alone was inspected. Some general cerebral injection existed, as was evidenced by the numerous red points on sections being made; and there was slight effusion in the arachnoid space. But the chief lesion was observed in the middle lobe of the *left* hemisphere, where a portion of the brain, about one cubic inch in size, was distinctly softened, and of a uniform yellowish-white hue, without any unusual vascularity in the contiguous parts of the brain.

V. and VI.—Phthisis Pulmonalis.—These two specimens were the two lungs of a person who died of pulmonary consumption. They are remarkable as exhibiting considerable hypertrophy, with most extensive infiltration of tubercle as a cause; heavy and solid; they cut like pieces of cheese. A few small cavities were observed in the apex of each.

VII.—This specimen has been already described. See Case III.

VIII.—Purulent Deposit in Spleen, and sanguineous pleuritic Effusion.—John Pirrie, a middle-aged man, was admitted into the General Hospital, having been reported as ill of fever for fourteen days. Iritis set in shortly after, for which he was treated by depletion, blistering, and mercurial salivation. Ten days after admission, hemorrhage from the gums was reported; but, on the thirteenth day, it is stated that the eye had recovered. On the seventeenth day, he was seized with a relapse of fever, in which the usual symptoms were accompanied by diarrhœa, and apparently trifling cough. The bowels were regulated by treatment in two days, yet, on the twentieth, after his supper, and without any symptoms indicative of approaching dissolution, he suddenly expired.

Post Mortem Examination.—The body was examined forty-eight hours after death. Both pleural spaces were distended with bloody effusion. Under the left pulmonary pleura there was a distinct extravasation of blood in a coagulated state. In other respects the lungs were healthy, as also were the stomach and intestines. The spleen was much enlarged, and, on section, presented several small but distinct purulent deposits. This lesion, in all likelihood, produced the febrile state reported on the seventeenth day.

IX. and X.—See Case III.

XI.—Disease of Aortic Valves.—This dried specimen exhibits thickening of the valves and calcareous deposit, to a remarkable degree, together with partial adhesion, which renders the aperture exceedingly contracted. It was taken from the body of a cavalry officer, who experienced so little annoyance from the disease as to indulge himself, contrary to the express injunctions of his medical attendant, in the exercise of rowing, in which he was engaged at the moment of his death. On a previous occasion he had fallen in a swoon upon the floor of a ball-room, but soon rallied. Further particulars are wanting, though it may be mentioned that the case was seen by several medical gentlemen in Edinburgh, from one of whom the reporter received the interesting specimen.

XII.—Dilated Heart, with Disease of Aortic Valves.—John Wilson, aged 17, a mill-worker, of lymphatic constitution, was admitted into the General Hospital on the 7th of August, 1850. He never suffered from rheumatism, but occasionally, for the last two winters, has been annoyed with cough, which was so severe last winter as to be accompanied by expectoration of blood. He has latterly complained of palpitation on using more than the most ordinary exertion. On admission, his principal complaints were troublesome cough, and a painful tumour situated at the lower part of the left ham. This tumour, which obliges him to keep the leg closely flexed, was hard and tender, and without pulsation, and its external appearance red and inflamed. After a few days, the tumour completely disappeared, and nothing remained for complaint save the slight cough, which soon also ceased, without any particular treatment. He was now about to leave the hospital, when, at the physician's visit on the 15th, he directed attention to the toes of his left foot, which were exceedingly painful. On examination, the little toe was found to be quite black, while the others, and the dorsum of the foot, presented a mottled appearance. Lesion of the organs of circulation was now suspected, and, on examination, there were discovered extended dulness over the cardiac region, feeble pulse, a distinct murmur with the first sound, increasing in intensity towards the carotids; the pulse was 100, and soft. Opium, stimulants, and nourishing diet were administered; but on the 21st it was evident that a portion of the foot must be lost. The gangrene, however, seemed to have stopped, the sloughs were being detached, and the surfaces underneath began to assume a healthy aspect, when, one evening, while sitting up at his supper, he suddenly expired.

Post Mortem Examination.—Unfortunately, the heart and lungs were the only organs examined, so that the condition of the arteries in the left leg cannot be positively declared. The lungs were healthy. The left ventricle of the heart may be seen in the specimen to be extremely dilated, without hypertrophy of the substance of the walls; while the aortic valves are completely covered with small lymphy vegetations, the evident result of chronic inflammation.

XIII.—For an account of this case, the reader is referred to a paper in the last Number of this Journal, by Mr. Browne[a].

XIV., XV., XVI.—These cases call for no particular remark.

XVII.—This specimen was taken from the body of an adult female, a well-known character, who died in the union workhouse. The malformation of the brain is evident from the examination of the skull, the comparative dimensions of the two hemispheres being altogether different, showing clearly an atrophy of one side.

XVIII.—This specimen represents the first joint of a great toe, of which the synovial membrane is affected with velvety thickening, a beautiful example of one of the phenomena of synovitis.

XIX.—Cirrhosis of the Liver.—Alice Lynch, of middle age, was admitted into the General Hospital in a delirious state, and quite unable to give any account of herself. The pulse was imperceptible at the wrist, and there was considerable tenderness of the epigastrium. A stimulant mixture having been administered, she slightly rallied, and the pulse, though very feeble, could be counted 84. The skin and conjunctiva were intensely orange, and the evacuations after enemata perfectly free from bile. The left pupil was dilated. She continued insensible, and moaned on till the close, which occurred on the following morning, after an attack of convulsions.

Post Mortem Examination.—The only morbid appearances disclosed on inspection, though all parts of the body were examined, were highly developed cirrhosis of the liver, enlargement of the spleen, and several old adhesions of the uterine appendages.

XX.—The Brain in Typhus.—This case occurred in a male adult. The symptoms were principally cerebral, and the form of delirium, typhomania. The surface of the body was marked with distinct petechiæ, and a rubeoloid eruption. On inspection of the brain, which alone was examined, the substance was uniformly firm. There was general and great congestion, and some bloody effusion was observed in the ventricles.

XXI.—Muco-enteritis and Stricture of the Colon.—Anne Newbold, aged 37, for several years in delicate health, was admitted into the General Hospital on the 20th of April. She stated that she had been subject to spasmodic cough for several years, and was ill of her present complaint twenty-two weeks. It commenced with vomiting and pain of the bowels, which were soon accompanied by debility and emaciation. Six weeks prior to admission, the vomiting ceased, and diarrhœa set in. On admission, there was extreme emaciation; the pulse exceedingly feeble; great prostration; the skin dry; diarrhœa present; the abdomen tender; and a burning sensation complained of at the epigastrium. These symptoms continued unabated until the fatal event, which occurred on the 22nd, and revealed the following condition, on examination forty-eight hours afterwards:—Body extremely attenuated; lungs

[a] Page 226.

healthy; stomach enormously enlarged, extending fully five inches below the umbilicus. The ileum was generally and deeply congested, and the mucous membrane, from its commencement to the cæcum, presented the varied shades of inflammatory vascularity, deepening towards the latter point. The colon was thickened in one point, and also slightly ulcerated; and here the caliber was perceptibly narrowed. The peritoneum was unaffected.

MEDICAL MISCELLANY.

Case of Secondary Hemorrhage, occurring on the fourth Day after Delivery, the Result of the Rupture of a bloody Tumour in the Cervix Uteri. By George Johnston, M. D., Assistant Physician to the Lying-in Hospital.

M. H., aged 35, a strong, robust country-woman, was admitted into the Rotundo Lying-in Hospital, late on the night of the 21st September, 1850, labour pains having unexpectedly set in about three hours before. She states that it is her seventh pregnancy, that she has five children living, one having been dead-born at the full period, for which she could assign no cause; had always easy confinements; that, considering herself to be not more than in the eighth month, she had travelled up on foot from the country, a distance of eighty miles, about four or five days previously, for the purpose of arranging pecuniary matters, calculating that she would be able to return home in sufficient time to be confined. During her journey, which occupied upwards of two days, she suffered much from fatigue, and exposure to cold and wet, which, together with her distress of mind, occasioned by the purport of her mission, all tended to bring on premature labour. The fœtal heart could not be heard, nor had she felt the motion of the child since her arrival in town. On examination *per vaginam*, the os uteri was found to be about the size of a crown-piece, breech presenting, membranes unruptured, pains apparently not of much strength. However, after a short and easy labour of about four hours' duration, the child was born with the membranes entire; on rupturing them it was discovered to be a female of about eight months, and bore evident signs of having been dead for some time. The placenta was expelled in about ten minutes afterwards; no hemorrhage nor any untoward symptom supervened, and everything went on favourably for the first three days. The milk was secreted on the second day. At the morning visit of the 25th (her fourth day), she expressed herself quite strong; a cough, which she had contracted on her journey, much better; no complaint, nor any uneasiness whatever. At half-past 1, P. M., the nurse called me in a great hurry, stating that the patient had been suddenly attacked with violent hemorrhage. On inquiry I found that she had not been out of bed, nor had she been using any

exertion. On reaching the bed-side (which was in less than a minute after hearing the report, and certainly not more than three from the first gush of blood), I found her lying on her back, countenance perfectly blanched, and expressive of great anxiety, which, with her neck, hands, and arms, was bathed in cold, clammy perspiration. No pulse could be felt at the wrist; and the bed inundated with blood, which was still flowing rapidly from the vagina. The pillows were at once withdrawn from underneath her head, thus placing her completely in the horizontal position; firm pressure was made over the uterus (which was found well contracted); cold applied externally, and a stream of cold water was injected into the vagina and rectum. She was given three ounces of wine, with half a drachm of ergot of rye; at the same time a current of cold air was allowed to pass across her face; all of which had the effect of restraining the great flow, but not of completely checking the hemorrhage, for a slight trickling still continued. However, having restored somewhat the temperature of the body, by means of hot jars to the feet and warm blankets to the extremities, by stimulants (brandy) frequently repeated, beef-tea, &c., we were enabled once more to feel the pulse at the wrist; the colour of the countenance returned slightly, giving us hopes that the worst had been overcome. The ergot was repeated, with forty drops of the acetum opii in an ounce of brandy and water, and pressure was maintained over the uterus by the hand for nearly half an hour. When about re-applying the binder, another sudden flow of blood took place, the hand being still on the uterus, and with it the expulsion of a large coagulum. She again became pulseless and fainted, cold, clammy perspiration once more bedewing the surface of her face, neck, and arms; this was succeeded by extreme restlessness with great anxiety, and the respiration became laboured and gasping. Stimulants were again attempted to be administered, but they were with difficulty swallowed, and shortly after rejected; and she too soon gave evidence that all our efforts were unavailing, as she rapidly sank, just one hour and a half after the first attack of hemorrhage.

Autopsy.—The thoracic and abdominal viscera were found quite healthy, but pale and bloodless. The uterus was well contracted down in the pelvis. On closer inspection, just beneath the peritoneal covering, in the left iliac fossa, a tumour of moderately firm consistence was seen, about the size of a large walnut, having an ecchymosed appearance, which extended also some little distance on the outer side: this tumour was firmly attached to the lower part of the uterus. On removing the latter with its appendages, and laying it open from the os to the fundus, cutting in the mesial line through the anterior wall, the muscular structure was found to be quite healthy, and that portion of the inner surface which had been occupied by the placenta was well plugged with a dark and firm clot, portions of which were seen entering the mouths of the uterine sinuses, thus proving that they had not been the source of the hemorrhage. On the left side of the cervix, about one inch from the os uteri, was observed a ragged, sloughy-looking opening, the edges of which were

very irregular, and of a black ash-grey colour. This opening, which was large enough to admit two fingers easily, communicated with a cavity the size of a small orange; it seemed to be formed in the substance of the cervix, and its external wall was found to be the projecting tumour before mentioned, as seen from the outside. On laying open this cavity, and washing away some loose clots (but carefully observing that there were no laminated coagula), the lining membrane was found rugous, of a firm consistence, and resembling very much in appearance the mucous membrane of the vagina. Opening into this sac were seen the mouths of five or six blood-vessels large enough to admit a small bougie. Upon introducing a blowpipe into these open mouths, and inflating them, it was clearly demonstrated that they communicated with the uterine sinuses, for bubbles of air could be driven out of the vessels at the edge of the uterus where we had divided it, and with care and delicate manipulation pieces of bougie could be passed for a distance of nearly three or four inches along these ducts, which ran in various directions, some longitudinally, some transversely, and could even be protruded in one or two instances through their cut openings.

This case was read before the Obstetrical Society on the first night of its meeting this session, when it was considered by some of the members present to be a thrombus or bloody tumour occuring during labour. This opinion, so far, at least, as the former part of it is concerned, has been corroborated by Dr. Carte, the Curator of the College of Surgeons Museum, who was kind enough to make a careful examination of the sac; but at what period the formation of it took place remains doubtful, for it hardly could have occurred during labour, which was extremely easy, as is evidenced both by the short time it occupied, and the manner in which the fœtus was expelled, viz., in the membranes. It is, therefore, a case of peculiar interest, as well as an instance of one of the many casualties the obstetrician is liable to encounter in his course of practice, by which his reputation might be placed at stake and his character deeply involved; distressing, too, from its being almost, if not wholly, beyond his control, and which the vigilance of his most watchful anxiety would be unable to foresee.

On the Urine of the Crocodile. By W. D. Moore, A. B., M. B.

The crocodile, from which the specimen of urine I had an opportunity of examining was taken, died on board the Peninsular and Oriental Company's steam-ship, "Ripon," on the voyage from Egypt to Malta. He had been purchased by the Hon. Mr. Murray, Consul-General of Egypt, for the Zoological Gardens, Regent's Park. During the greater part of the four days he was on board, he seemed to be in a state of torpor; once or twice, however, he changed his position, and opened his mouth, but took neither food nor drink. The day before the vessel reached Malta, she encountered a severe storm, with a cold westerly wind; and on her arrival at that port on the 14th March, 1851, the crocodile was found dead in his box. The

box had been placed in the warmest position, and where least motion would be felt; it is probable, however, that he died of the effects of the cold wind which had been experienced on the preceding day.

The crocodile, a male, was nine feet nine inches in length, apparently young, not having lost any teeth. The body was opened about thirty-six hours after death, and examined by F. Godfrey, Esq., superintending surgeon, H. E. I. C., Madras, and my brother, Dr. C. F. Moore, surgeon of the Ripon. No lesion was discovered in any organ; the bladder, which was small, contained about ten ounces of urine, of which a small portion was saved. On the 12th April, thirty days after the death of the animal, I received from my brother a bottle containing somewhat less than two ounces of the urine. I found it to be slightly acid ; specific gravity, 1017. On removing the cork, there was a very trifling escape of gas; the odour was very peculiar and disagreeable, almost fæcal, or somewhat resembling sulphuretted hydrogen. There was no evolution of ammonia. The urine was of a greenish colour; it contained a little albumen, and there was a very copious whitish precipitate at the bottom, which my brother informed me existed at the time of its removal from the bladder. The addition of an acid to the fluid portion produced some effervescence. Solution of acetate of lead gave a dirty white precipitate. Solution of chloride of barium produced a copious precipitate. With water of pure ammonia, the urine gave a precipitate of earthy phosphates, which, when examined under the microscope, resembled the appearances figured in Simon's Animal Chemistry[a]. No urea could be discovered.

A portion of the deposit from which the urine had been poured off, when digested in water of caustic potash, was quickly dissolved, with the evolution of ammonia; and from the solution thus obtained uric acid was thrown down, as a white precipitate, on the addition of a few drops of dilute hydrochloric acid. Examined under the microscope, the deposit appeared to consist almost entirely of urate of ammonia, in the form represented by Simon, plate 3, fig. 28 *a*.

It is remarkable that the urine preserved its acidity at the end of a month. This was doubtless owing to the absence of urea, as urine which contains much urea becomes alkaline very rapidly, from the formation of carbonate of ammonia. In the absence of urea, and the large amount of uric acid and urates it contained, it resembles the urine of some other reptiles. The existence of albumen is singular, and would lead one to suspect that in opening the bladder a small quantity of some serous fluid might have become mixed with the urine; my brother, however, is not aware of such having occurred. The foregoing examination, although imperfect, may not be uninteresting. The length of time during which the urine was kept, and the fact of its having been taken from a dead animal, may be considered objectionable, as likely to lead to results different from what might have been obtained under more favourable circumstances; but, on the other hand, the specimen seemed to have undergone but little change, and the reptile does not appear to have died of disease.

[a] Sydenham Society's Translation, vol. ii. plate 3, fig. 30 *a*.

Observations on "the Regurgitating Disease." By Sir Henry Marsh, Bart., M. R. I. A., &c., &c.

Merrion-square, *April* 21, 1851.

Sir,—If you think the letter I herewith send to you of sufficient interest to obtain a place in the pages of the Dublin Quarterly Journal, I shall feel gratified by its introduction. It was written in haste, in reply to a letter addressed to me by Dr. Little, of Sligo, in which he details the symptoms of a case of "regurgitation," about the nature and treatment of which he felt deeply interested. Dr. Little copied my letter, enclosed me the copy, expressed himself strongly in terms of approbation of its contents, and thought that the interest of the subject rendered it worthy of publication. You can judge for yourself. I will briefly sketch the facts of the case, as stated to me at greater length and with great perspicuity by Dr. Little. This is a necessary introduction to my letter. The patient was a fine, animated, highly intelligent, little girl, of about twelve years of age, precocious in mind, of a very nervous temperament, rather overgrown for her years, and very little, if at all, emaciated. Her aspect was that of perfect health, her pulse regular, respiration perfect. An accurate examination failed to detect anything abnormal in any of the viscera, or to throw light upon the cause or origin of the existing symptoms. There was no spinal distortion or tenderness; the bowels were torpid; evacuations solid, figured, and of a pale yellow colour; the kidney secretion normal; appetite good; tongue clean; scarcely any thirst. During the last six weeks she has been rejecting a part of each meal, sometimes immediately, sometimes in five, ten, or twenty minutes after having been swallowed; sometimes two hours elapse ere the rejection of food takes place. The matters rejected are either unchanged aliment or drink, or, if they remain longer in the stomach, they present the usual appearance of imperfectly digested food. They generally return without smell, or acidity, or bitterness, and without any premonitory or exciting nausea or effort. Wind in the stomach is, however, sometimes complained of, and there are gaseous eructations (sulphuretted hydrogen, I conclude, from the smell and the taste described); and there is a frequent globus, with a hot sensation, in the course of the œsophagus. Her spirits are excellent; she rides on horseback daily, and returns, as it has been expressed to me, "blooming." She had been similarly affected previously. Dr. Little took a perfectly correct view of this peculiar affection, and gave me a summary of the treatment adopted by him, which appeared to me in every particular appropriate and judicious.

I remain, &c., &c.,

H. Marsh.

To the Editor of the Dublin Quarterly Journal of Medical Science.

P. S.—Within the last two days I have received from Dr. Lynch, of Loughrea, the following case, accompanied by a few observations; I think them well worthy of publication:—

"I saw Miss C—— yesterday, and as it is some time since you had an opportunity of personally examining her, I thought it better to send you a brief outline of her case; you will perceive that it closely resembles the description you have given of regurgitation. I have met with several instances of a nearly similar nature, all in young females.

"Miss C——, aged 20, complains of rejection of food about an hour or two after meals; she feels a sense of oppression at the pit of the stomach, particularly when she indulges her appetite, which is unimpaired; the contents of the stomach are thrown up without effort or nausea. The food, when rejected, smells very acid, and is accompanied by a discharge of frothy mucus; there is occasionally slight pyrosis, with a very distressing sensation of sinking at the epigastrium. There is no tendency to flatulence, no tenderness on pressure over the stomach, and no pain whatever in that region. At first the rejection of food from the stomach was only observed after meals, now it occurs whenever she eats, and no matter what her food may consist of. The contents of the stomach are returned, in successive portions, with little apparent exertion, and in small quantities at a time; thus, after dinner, she is often obliged to retire three or four times within a short period of time, and feels quite well again and in good spirits as soon as the food comes up. She never throws up at night. The menstrual periods are regular, and she is not worse, as regards her stomach, when *unwell* than at other times. There is slight spinal tenderness over the middle dorsal vertebræ, and circumscribed patches of redness frequently occur in the same situation, lasting for a day or two, and then disappearing; this is nothing but mere erythematous redness, without any vesicular, scaly, or pustular eruption. The bowels are habitually constipated; she is not much reduced in appearance, but looks pale, and seems to be in low spirits. Pulse 72, of moderate strength; tongue clean; no headachs, megrim, or noises in the head. Miss C—— has been about three months ill; during the last year or two, she has been exerting herself to the utmost in relieving, as far as circumstances would permit, the misery and destitution which prevailed around her amongst the poor; the consequence was, many harrowing scenes and daily painful appeals to a sensitive and most benevolent disposition. I think that her illness is mainly attributable to this cause. With respect to the treatment, reclining after meals, daily shower baths, regulation of the bowels by aloetic aperients, and horse exercise, have been the means employed. In addition, nitrate of silver in pill, creasote and muriate of morphia in pill, blistering the spine and epigastrium, were had recourse to. The disease lasted for about eighteen months, and then gradually disappeared, while paying a succession of visits to some friends in England.

"Have you tried the extract of calendula or marygold in cases of chronic vomiting? It is highly recommended in the fifth volume of Johnson's Medico-Chirurgical Review, p. 195. I have only once given it as yet, in three-grain doses, but it had not any appreciable

effect. All the cases of this disease I have met with turned out well ultimately, except one, a young lady, about whom I consulted you seven or eight years ago; she died of phthisis. One case was cured by marriage, or rather by pregnancy; the young lady had been affected with the disease for years, and, with the exception of dysmenorrhœa and costive bowels, was in other respects apparently in good health. She has continued perfectly free from the disease ever since her marriage. I could in two cases distinctly trace the disease to a suppressed cutaneous eruption. In one case a combination of calumba and magnesia, twenty grains of the former and five of the latter, was of remarkable use. In another case aqua lauro-cerasi allayed the irritability of the stomach, and tended ultimately to remove it altogether. In one case of very long standing in a very hysterical female, who was a prey to hysteria in a great variety of forms, much relief was obtained by Battley's liquor cinchonæ, fifteen drops three times a day."

"My dear Doctor Little.—I am quite gratified by your having written to me. No case could, with more distinctness, exhibit the unmixed characters of this curious gastric affection, than that you have so accurately and fully detailed; it is, in fact, one of the comparatively few uncomplicated forms of the disease we meet with in practice. Since I first called the attention of the profession to the distinction between vomiting and regurgitation, never before, that I am aware of, noticed in print, I have met with it occasionally in its simple form, very frequently associated with other diseases; and I have held it in contemplation to publish additional observations on this interesting, but generally not dangerous affection. The first case which drew my attention to the subject was that of a boy about eleven years old, who appeared in excellent health, yet, without the slightest perception of nausea, brought back after every meal a certain quantity of the food swallowed; enough, however, remained; for the nutritive function was perfect; he was well nourished, and there was full vigour of mind and body. This led me to investigate further. I found regurgitation without nausea to be a prominent symptom in many cases of hysteria; this is its most frequent complication. I found this symptom to prevail in several cases of incipient phthisis in young females of hysterical temperament: a very frequent accompaniment of spinal irritation, either with or without well-marked hysterical symptoms. I found too, that, in several cases of pregnancy, what was called vomiting was, in reality, regurgitation, either without or with only a slight amount of perception of nausea. Also, in many cases of pertussis, I found that the rejection of food after the paroxysm of cough was effected by the act, not of vomiting, but of regurgitation. I was surprised at the number and variety of cases in which regurgitation prevailed: it is, I think, essentially a neural affection. I have met with, at the lowest calculation, twenty cases of it in the female for one in the male. I have often wondered that the distinction, so obvious, and, in a practical

point of view, so important as that between the muscular acts of vomiting and of regurgitation, should not long since have been recognised, and brought publicly before the profession. Regurgitation is a very remarkable irregularity and perverted—I might say reverted—action of the nerves and muscles of the stomach. As far as my observations have reached, I have been enabled to trace it with certainty, in many instances, to the strumous diathesis, to an imperfection of function, connected, I know not how, with struma. In treatment, the knowledge of this fact is valuable. That which, for briefness, may be termed the anti-strumous treatment, is, as a general rule, the most effective. All that is restorative and invigorating in constitutional treatment is best suited to this affection: hence the value of air, exercise, cheerfulness, the thermo-frigid douche to the spine, well-managed tepid shower-baths, sea air, and, above all, travelling, and change of air and clime, and if with a pleasant party, all the better; also, in some cases, particularly those complicated with any degree of chlorosis, preparations of iron. Chlorosis is frequently accompanied by regurgitation without nausea. I remember one most obstinate case, one of long duration, which yielded completely to the use, both external and internal, of the waters of Schwalbach, in Nassau. In cases of an opposite kind, those in which the hemorrhagic rather than chlorotic diathesis prevails, bark or the salts of its alkaloid succeed best. It is a curious fact, which I have noted in many, but not all cases, that the stomach rejecting food perpetually, tolerates and retains even nauseous medicines. Were I again to publish aught on this disease, I should change its title; I should call it "the regurgitating disease:" for since I wrote the paper in the Dublin Medical Journal (first series, vol. xxiii., page 237), entitled "regurgitation without nausea," I have met with many cases of regurgitation *with* nausea. I am now attending an unmarried lady aged 40, hysterical, subject to every variety of nervous disturbance and profuse menorrhagia. She rejects daily a certain portion of her food, unchanged by digestion, morsel after morsel, by the act of regurgitation, not by vomiting. But the peculiarity of her case is, that she suffers from an almost unintermitting nausea: there is no evidence of spinal irritation, nor is there any uterine disease. I have now under my care also another lady, about three or four years older, a martyr, during the greater part of her life, to most distressing spinal irritation, her back scarred with the cicatrices of former innumerable issues, who, though suffering from very constant nausea, regurgitates by little and little a portion of every meal, but does not reject the food by vomiting.

"In two cases of this disease, now under my care, there exists a most remarkable diminution of the renal secretion, with a copious deposit of urate of ammonia. In one of those the appetite is good; in the other it is extinguished.

"In some cases of this singular affection there is present a symptom which indicates the co-existence of dyspepsia. After a meal the patient is conscious of a sense of fulness,—a load, as it is often termed,

—an oppression at the epigastrium. This state continues to be one of great discomfort, until, by successive acts of regurgitation, so much of the meal is rejected as may suffice to relieve this distressing sense of distention. These are the kind of cases in which the symptoms are greatly mitigated by limiting the patient to a certain number of ounces of food at each meal; the amount must, of course, be different in different cases, but the object should be attained of restricting the patient to an easily digestible quantity, so as to take away the necessity for regurgitation; also, in such cases, advantage is derived from enjoining the recumbent position for an hour and a half or two hours after each meal. Curiously enough, I have observed, in several instances, that a patient so affected may dine out and be exempted, during the excitement of a dinner party, from the necessity of disgorging; such is the wonderful influence of mind over nervous action.

"I have observed, too, that this affection of the gastric nerves is sometimes replaced, and I may say cured, by some other form of neural affection. In one case, severe matutinal nervous headachs were substituted for the regurgitation; when the former were established, the latter ceased. In another case (in a patient who ultimately became deranged) regurgitation, intractable and prolonged for months, totally ceased when nervous disturbance and irritation assumed a new form; an hysterical cough, the most loud, roaring, and unearthly in its sounds, dreadful to listeners, not so to the patient, took its place. These facts of substitution elucidate the nature of the complaint. In another very remarkable case, there were, first regurgitation, obstinantly persisting for many months; secondly, on its cessation, total loss of smell and taste; lastly, aphonia, without any indication, local or constitutional, of pulmonary disease. The aphonia persisted for about three months. This lady I sent to travel. Her last letter announced the restoration of voice and of health generally; the nerves of digestion, of odour, of taste, and of voice, have, in succession, resumed their normal functions. In some cases spasmodic cough and other hysteric symptoms co-exist with regurgitation. Subsequent experience has taught me another and a distinct view of this symptom. There are cases of real and often serious gastric disease, in which regurgitation, instead of being the sole or prominent symptom, constitutes only one, and a subordinate one, of a group of symptoms, all indicative of real disease in the stomach and digestive function.

"I have met with cases characterized by severe gastrodynia, pain on pressure at the epigastrium, epigastric pulsation during digestion, gaseous distention and eructations, impaired appetite, and regurgitation, not only of acid or bitter fluids, but also of masses of half-digested food, and other symptoms of serious and even organic disease of the stomach. Cases of this kind are totally distinct from those I have been describing, and there is one peculiarity by which they may generally be discriminated. Real gastric disease is accompanied by a progressive emaciation; in the simple regurgitating

disease, there is either no emaciation, or it is to an extent not sufficient to excite alarm. In one well-marked case of uncomplicated regurgitation in a girl of 16, the mother said:—'Is it not a wonder, Sir, that my daughter, though she throws up all her food, looks plump, and fat, and well? She is as active and in as high spirits as ever.' I told her that her daughter was not in danger, that the disease might be tedious, that enough food was retained to nourish her well, that it was purely an affection of the nerves of the stomach. She was in a state of great apprehension about her. In this case the simultaneous application of two, not large, blisters, one at the epigastrium and the other opposite, on the spine, controlled the regurgitation; but it returned after eight or ten days, and yielded ultimately to a course of electro-magnetism. Generally active purgation injures, as, indeed, does every mode of treatment which tends to depress the vital powers. One case, however, in which a vast quantity of fæcal matter was detained in the colon, was cured by a course of purgatives. I have found a drop of creasote, with a fifteenth or a twentieth of a grain of muriate of morphia, in pill, repeated three or four times a day, more frequently useful than, perhaps, any other medicine; yet occasionally it happens that creasote disagrees. The compound aloetic pill I have generally found the best aperient. Opium in full doses, while it deadens the irritability of the nerves, injures the whole digestive function; its good is more than counterbalanced by this evil. In some cases prussic acid, either with or without a few drops of the solution of muriate of morphia, has done real good. Slow eating, perfect mastication, food well selected and restricted in quantity, constitute essentials in the treatment. The reception of food slowly, as by suction through a tube, I have found, in a few cases of extreme regurgitation, advantageous. I have thus given ass or cow's milk, slowly introduced through a straw or glass tube into the stomach, after the American fashion of swallowing sherry cobbler.

"This affection, like hysteria, sets at defiance all fixed rules as to particular remedies; that which perfectly succeeds in one case utterly fails in another apparently identical. In some cases I have known much benefit to be derived from ices; in one case the disease yielded (apparently at least) to iced coffee. I have also found white bismuth and magnesia particularly useful. Of all remedies, I have thought that travelling, and change of air and place constantly repeated, and in obstinate cases a total change of climate, the most uniformly efficient. But I must have done. I have got into the vein for writing, with me a rare propensity. You will pardon the length to which my remarks have been extended.

"Your's in haste, very faithfully,

"H. Marsh.

"*Dr. Little, Sligo.*"

History of a Case of Chronic Ulcer of the Stomach, which had existed for many Years, and at length terminated fatally; with an Account of the Post Mortem Appearances. By Robert Adams, M.D., Surgeon to the Richmond Hospital[a].

Mr. H. S., aged 35, a solicitor, had been, since he was twenty-two years of age, more or less an invalid: the symptoms he suffered from were principally referred to the stomach. He was habitually dyspeptic; and each day, after his meals, he became so painfully distended with flatus, that he felt compelled to loosen all his dress. On some occasions he was attacked with paroxysms of gastrodynia, which came on so suddenly and so severely, that he would fall from his chair, and writhe on the floor in agony for some moments. After a time, vomitings, which were remarkable for the very large quantity of fluid discharged on each occasion, attended these painful symptoms. These vomitings were immediately succeeded by painful flatulent distention of the whole abdomen.

The paroxysms very frequently visited him for a fortnight or more, then they would either cease spontaneously, or yield to the treatment used; and, for a time, he would recover somewhat his looks and spirits, and feel himself competent to attend to his active professional business, both in and out of doors.

To prevent the recurrence of the paroxysms above-mentioned, he was treated as we usually treat a patient labouring under aggravated dyspepsia, particularly as to diet. He did not attend strictly to the directions given, and frequently suffered most severely from neglecting the ordinary rules laid down; for example, he on several occasions induced a paroxysm of pain, vomiting, and flatulent distention, by having dined largely on beefsteak, &c., and potato.

His bowels were habitually constipated, and never acted well without the aid of medicine; the urine was very deficient in quantity, and, on many occasions, was found to contain numerous crystals of oxalate of lime. His appetite was variable; but, when he felt quite well, it might be said to be voracious. In 1845, he was advised by Dr. Graves, under whose care he then was, to go to Carlsbad, and he seemed to derive much advantage from his sojourn there, and from drinking the waters. After his return home he enjoyed tolerable health, until early in the summer of 1846, when all his former symptoms recurred with violence, and he again visited Carlsbad, with the hope of getting relief; but in this he was disappointed. While sojourning there, he got an attack of gastro-enteritis, which well nigh proved fatal. He returned to Dublin in September, 1846, and was in a debilitated state for some time; but towards the latter end of that year he again recovered somewhat his strength and spirits, and was permitted to complete an engagement of matrimony

[a] Communicated to the Surgical Society of Ireland, on the 29th Jan. 1851.

which, for two years previously, the mutual friends of both parties had opposed, on account of the uncertain state of his health.

Immediately subsequent to this, the disease was very slow in its progress, and in the years 1847 and 1848 underwent but little change.

In January, 1849, professional business obliged him to proceed to London, and he was recommended to avail himself of this opportunity to consult Drs. Todd and Addison. In my letter to the former, relative to the case, I referred him very much to the patient himself, who was well acquainted with the various means of treatment that had been used. In this letter, however, I particularly mentioned the existence of a small tumour in the right "hypochondriac region," which was painful on pressure. The reply made to me by Dr. Todd, as to the result of his and Dr. Addison's examination, was as follows :

"We are unanimously of opinion that the disease is a *dilated stomach*, from contraction at the pylorus, or immediately below it, in the duodenum. The primary cause was an ulcer, which, cicatrizing, contracted the channel, causing obstruction, dilatation, periodical vomiting, and pain." A system of diet suitable for such a condition of things was recommended.

That the opinion given, that "the stomach was largely dilated," was correct, was plainly to be inferred; first, from the large quantity of fluid vomited at each single effort, as it were, of the stomach; and secondly, because percussion over the region of the stomach gave a peculiar sonoriety, by which we could trace its outline, and estimate the amount of its dilatation. The time to select for eliciting fully, by percussion, this tympanitic distention of the stomach itself, we found to be after the patient had vomited, when the organ became suddenly and largely distended with flatus. In reply to my letter, before mentioned, I find no allusion is made to the tumour which I reported I could sometimes feel in the right hypochondriac region. It is to be supposed that the state of the stomach, during the period of examination in London, was not favourable for the discovery of it; indeed, I have been informed that, during the few days he remained in town, he was much distressed by the over-distended state of his abdomen; and we had observed that the tumour could only be felt when the stomach and abdomen were not distended. However, soon after Mr. S.'s return to Dublin, I again pointed out to himself the tumour situated at the right side; it was firm to the touch, and it was stated that some pain was always experienced after a manual examination had been made.

The unhappy combination, then, of this palpable tumour in the pyloric region, with the physical signs, we may say, of a dilated stomach, rendered the prognosis as to the ultimate result of the case most unfavourable.

I may here remark, that whenever the paroxysms of gastrodynia became so severe as to induce him to require my immediate attendance, I usually found him in bed, lying on his face, his knees

drawn up under his abdomen, and his face on the back of his hands. On these occasions, nothing gave him relief but large doses of some of the preparations of morphia.

For many days after a recovery from one of these paroxysms, if it had been severe, he seemed unable to hold himself erect, but usually kept himself crouched forward, and would even walk through the room thus bent.

To Dr. O. Barker, who was now in constant attendance on Mr. S., I am indebted for the following memoranda:

"March 30, 1850.

"During the previous week, Mr. S. has been passing melenous stools; and on this day a violent hematemesis set in. From these two sources, namely, the black diarrhœa, and vomiting of blood, the patient was greatly exhausted."

These alarming symptoms, after a week or so, ceased, under the usual treatment hereafter to be mentioned; and although the ordinary vomiting he before had recurred occasionally, he improved in a degree. It is to be remarked, that ever since this attack of melena and hematemesis, he never recovered his looks, but had a pale anemic appearance, which caused his friends to fear that some internal malignant disease existed, and that his death was approaching.

From Dr. Barker's memoranda we learn, that "on the 22nd of June Mr. S. was put upon nitrate of silver as a tonic, and he took steadily for a month the sixtl. of a grain three times a day." He considered that this medicine was of use to him; at all events, the report of his improved condition, after he had been placed under this plan of treatment, runs thus:—"July 24th. Mr. S. has certainly increased in weight; he has regained his spirits, and is stronger; he is able to walk out, and take exercise in an open carriage; he still has occasional attacks of vomiting, and the tumour can be felt as before." Otherwise, the disease appeared in abeyance until September 25th, when the pain and soreness in the tumour recurred with much severity; also the frothy vomiting and the flatulent distention, and these, in a few days more, were followed by a second attack of hematemesis and melenous stools, by which the patient was much reduced. Although these symptoms subsided naturally, or yielded to the treatment used, it became necessary now to support his flagging pulse with wine. Claret and Champagne seemed to have a good effect, as diffusible and mild stimulants, and were grateful to him. The pain in the tumour was now very troublesome, and although all appearance of hematemesis had ceased, the daily large vomitings continued; he was very weak; and early in November, he was with difficulty moved into town, a distance of four miles.

About midnight, on the 18th of November, he suddenly screamed in an agony of pain; he placed his hands over the hepatic region, and stated that he felt, in the situation where the tumour existed, something drop down, and as if a burst of some kind had occurred internally. I was by his bedside in a few moments; and I saw, by the expression of his countenance, by the general appearance of

intense suffering, and by the inordinate distention and tympanitic state of the whole abdomen, that death was at hand. He had thrown himself on his face, with his limbs drawn up under him; the belly felt more tense than I could imagine possible; his intellect was perfect; his pulse, which at first was tolerably firm, soon became small and frequent, and was scarcely to be counted; his breathing hurried; his extremities cold. Such was his suffering, that his screams could be heard in the next house. His torture could not be relieved by opiates, no matter to what extent given. He survived an hour and a half only after the last sudden seizure of pain, which seemed every moment to increase, until death came to relieve him. During the last hour of his life he seemed to us to become every moment more and more distended, whilst, at the same time, his breathing became shorter and more oppressed. He lay as long as he was able, inclined forwards and somewhat raised, his head supported, until, his strength failing entirely, he fell back and expired.

This last scene gave me the idea that what he had himself a presentiment of, and had often expressed should happen, had now occurred, namely, that "the flatulent distention would one day end in a rupture of some part within the abdomen."

Post Mortem Examination, made thirty-four Hours after Death.—The external surface had a very bloodless appearance. The neck and upper part of the body were emphysematous, and the eye-lids greatly swollen, as well as the rest of the face. When pressure was made beneath the clavicles, over the pectoral muscles, an emphysematous crackling became obvious to every one present. The abdomen was as tense as it could possibly be; there was no sign of putrefaction; the limbs were emaciated.

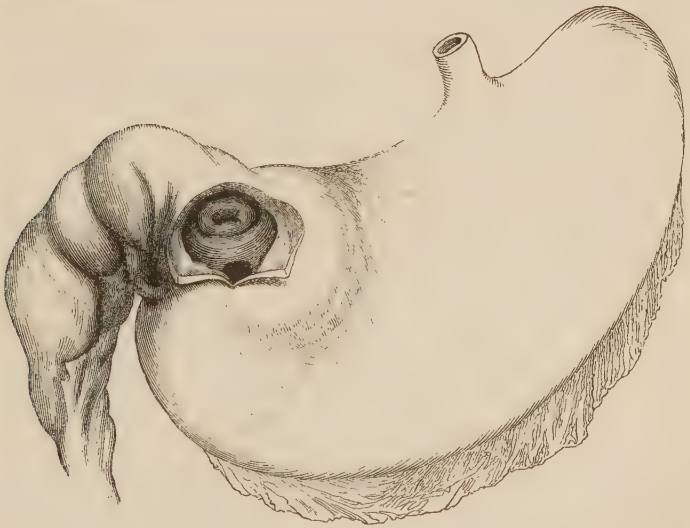
An incision having been made into the cavity of the peritoneum, a rush of air, which was inordinately fetid, took place from the abdomen. When the parietes were fully opened anteriorly, and the flaps thrown down, the stomach appeared of an enormous size, concealing almost all the intestines; it was quite flat and empty, and its outline seemed to exceed four times its natural extent. It was very white, and thickened in its tunics.

When the pyloric end of the stomach was examined, the tumour adverted to as occupying this region was found to be composed of the thickened parietes of this portion of the organ, together with some enlarged lymphatic glands, which lay behind it; and with these were connected the head of the pancreas. All these structures were found to circumscribe an irregular globular-shaped cavity, or newly-formed antrum, of the stomach, in the immediate vicinity of the pyloric opening; and thus was constituted the tumour which had been so often noticed during life.

Upon pulling down the pyloric end of the stomach, including, of course, the tumour, from the under surface of the right lobe of the liver, where these parts had been not only in contact, but adherent to each other, a large rent, about an inch and a quarter long, running from before backwards, or at right angles to the direction

of the long axis of the stomach, became evident. Through this large slit-like aperture, the edges of which were formed of serous membrane, the contents of the stomach had escaped into the general cavity of the peritoneum. These contents were partly liquid and partly gaseous, and I have no doubt but that an increased secretion of air took place at the moment of, and subsequent to the rupture of the stomach.

The external serous tunic of the stomach seemed somewhat thickened and opaque, as already mentioned. The muscular parietes of the organ were much hypertrophied; large bands, in bundles, crossed transversely and at right angles with the direction of the long axis of the stomach, from the cardia to the pylorus. The mucous membrane seemed to have been thickened, and also hypertrophied; its glands were very large and conspicuous. When the round globular mass or tumour into which the pyloric end of the stomach had been transformed was looked into, it was found to contain a pouch-like cavity or antrum internally. The more consistent part or walls of the tumour seemed to be formed of the much thickened muscular parietes of the organ, which were infiltrated with a dense white tissue, surrounded by enlarged lymphatic glands. This thickened portion of the stomach, and these lymphatic glands, were matted together, and adherent to the head of the pancreas. The portion of the tumour where the rent occurred had been in contact with, and adhe-



rent to, the under surface of the right lobe of the liver, near to the gall-bladder. The giving way of these "salutary adhesions" was the cause of death. When the hollow or interior of the pyloric tumour was fully exposed, it was found that, on its right side, the proper

pyloric aperture, or valve, was seen with a thickened, but not indurated circular margin. This opening was just large enough to admit the index finger, to the first joint. To the left of this antrum was seen the round opening or organic stricture, about an inch in diameter, by which the enormously distended stomach communicated with the antrum I am endeavouring to describe. The mucous lining of this lesser cavity (which formed, as it were, a vestibule to the proper pyloric opening) was removed almost entirely by ulceration; a few shreds of this membrane, and a very thin stratum of muscular fibres, alone remained.

Thus this new pouch, or antrum, had very imperfectly formed parietes, supported on one side by the liver, and behind by the head of the pancreas. Into the interior of this pouch the pylorus projected. The opening of this pyloric ring was somewhat constricted. The food, in the first instance, after having been imperfectly digested for a time in an enormously dilated stomach, had to pass through an organic stricture (as it were) near to the pyloric end of the stomach; secondly, to suffer a remora in the new and badly organized antrum formed in the ulcerated part; and thirdly, to pass through the narrowed pyloric valve, which certainly was not in a normal condition, nor favourable for the transmission of food through it. From this threefold obstacle, I conclude, arose the difficulty of the transmission of food from the stomach into the duodenum; hence the vomiting, the pain, and the constipation.

The rest of the intestinal tract seemed normal; but a careful dissection of the duodenum showed that its parietes were dilated, thin, and attenuated, and the muscular fibres of this portion of the intestinal tube were in a remarkable state of atrophy. The rest of the organ presented nothing worthy of observation.

Among the many circumstances referred to by the patient's family, as to the supposed *cause* of this disease, we may select, as the most probable, the great irregularity he observed as to the hours of taking his meals. While very young, he became subject to some of the most distressing symptoms of dyspepsia; his appetite was variable, but occasionally *voracious*, and, to use the words of his family, he always "bolted his food." The most remarkable *symptom* in the case was the very severe pain the patient endured. In many cases of chronic ulcer, or even of cancer of the stomach, pain is a symptom not much complained of; yet here, although the patient was a manly, vigorous individual, he was obliged to give way to his sufferings, and, as it had been stated, to fall on the floor in agony, &c. It is not easy to say positively, why these paroxysms of pain should cease for a long interval (the organic cause apparently continuing to be the same), and then so unaccountably recur; but it appeared to me probable that the newly-formed pouch or antrum occasionally became much stretched, when this organ was over-distended with flatus, and that thus the pain might be accounted for. The materials taken into the stomach and imperfectly digested there, no doubt, entered this pouch, and must have encountered a difficulty

in passing out of it through the true pyloric aperture. It would, I say, thus appear to me, that much of the pain the patient endured arose from the temporary remora of undigested matter in this pouch, into which the narrow end of the stomach, near to the pylorus, had been converted. The pyloric end of the stomach appeared to have been nearly detached from the rest of the organ, and the serous tunic seemed alone to connect them, a chronic process of ulceration having removed the mucous membrane in a circular manner ; the flatulent distention of the whole stomach, moreover, having a tendency to divaricate the pyloric end of the organ from the rest of it. All this must have occasionally caused an aggravation of the sufferings of the patient, which were always observed to be greater in proportion to the degree of flatulent distention that existed.

Another remarkable symptom to be noticed during the progress of this case was the vomiting. This amounted in quantity to several gallons during the day. One of his immediate relatives, who scarcely ever left his bed-side, assured me that she has on many successive days known the patient to vomit as much as seven large wash-hand basins full of dark, frothy fluid; this, too, being much more in quantity than he could have drank. "Indeed," she added, "I always remarked, on the days he drank the least, he vomited most." The sudden flatulent distention which sometimes occurred was attributable to indigestion, and to the decomposition of materials swallowed, but principally, perhaps, to the secretion of air by the mucous membrane of the stomach; and there can be but little doubt also, that this membrane and its glands were the source of much of the fluid exhaled during these attacks of vomiting.

With respect to the diagnosis, it must have been very difficult to have formed one in the commencement of the disease, because the only symptoms the patient laboured under then were those of aggravated dyspepsia, combined with gastrodynia. When the disease became more advanced, and when it was known that the patient vomited daily such large quantities of fluid, it was to be inferred plainly enough that the stomach was enormously dilated, and that probably a contraction existed at the pylorus. Besides, when the parietes of the abdomen were tolerably flaccid, a round tumour in the situation of the pylorus was plainly to be felt: this tumour was very tender to the touch. When the abdomen was somewhat distended with flatus, percussion over the region of the enormously dilated stomach gave a peculiar sonoriety, by which the gastric region could be clearly indicated, and its extensive outline traced.

Dr. Todd, of London, expressed a wish to examine the fluid ejected from the stomach in this case, and he, having subjected it to the microscope, discovered in it "sarcinæ ventriculi," of which he gave me the following account:—"Sarcinæ exist in great numbers in the matters vomited, and so far this confirms my idea that there is a very highly dilated state of the stomach in Mr. S.'s case; for in all other instances where I have found sarcinæ, the stomach was dilated."

When a tumour, as already mentioned, could be felt at the pylorus, and when the vomiting showed that some obstruction existed at this orifice, and when, moreover, the large quantities thrown up, as well as the peculiar stomach sonoriety elicited by percussion, convinced us that the stomach was very much dilated, another conclusion became fairly deducible from all the preceding observations, namely, that the muscular walls of the organ were in a state of hypertrophy.

The melena and hematemesis, as regards the diagnosis, pointed out that ulceration was going on internally; and as to prognosis, that the result would soon be unfavourable; but from the existence of this ill-omened sign of hematemesis, we were not assisted in forming the differential diagnosis, namely, whether the disease was cancerous or not. No doubt, the patient had for a long time the look of one labouring under organic disease, and indeed he had the straw-coloured yellow, the "jaune pâle," of cancer, with general anemia: however, I had always expressed my persuasion to the friends, that cancer did not exist. I grounded my opinion on the circumstance that the patient was so young when the disease commenced, and on the length of time the disease had continued, as well as on the fact of the deterioration of health not being uniform and progressive (for the intervals of improved health sometimes lasted even six months), and finally on the great extent of dilatation of the organ plainly recognisable.

Certainly in cancer of the stomach, when vomiting exists, it is usually to a very large amount. I have often heard the late Mr. Colles say, he had generally seen cancer of the pylorus characterized by an unaccountable amount of fluid vomited, this being much more than the quantity swallowed. In this case, however, although the quantity evacuated seemed to the attendants infinitely to exceed that swallowed, I could not consider it one of cancer; because I had never seen cancer of the pylorus accompanied by a dilatation of the stomach, such as was known to exist in this case.

The usual condition of a cancerous stomach does not consist in a state of dilatation and flatulent distention recognizable during life, but in diminished capacity from thickened parietes, and also from fungous growths into the interior of this organ. From the history, and the signs of a chronic ulcer of the stomach, with dilatation and hypertrophy of the muscular tunics, being so well marked, the true nature of the case was by no means an enigma; and the physicians of London and Dublin were respectively agreed in opinion as to the diagnosis and the prognosis.

The cause of death was the sudden rupture of the "salutary adhesions" to the liver, and hence the transverse rent with thin edges, noticed in the parietes of the stomach; but when the interior of the organ was exposed, then appeared the circular ulcer, with a deep and sharply cut edge. This ulcer must have taken an annular course round the smaller end of the stomach, within half an inch of the pylorus, thus forming a zone internally which would have a tendency, by becoming deeper, and by the continued ulceration, to de-

tach the pylorus from the rest of the organ ; indeed the serous membrane seemed alone to have held together the pylorus and the small end of the stomach.

Some may here observe, that there was something very unusual in this form of internal ulceration of the mucous membrane running round the interior of the small end of the stomach, instead of occupying, as ulcers usually do, either the anterior or posterior wall of the viscus ; yet, if we look to the work of Cruveilhier, to whom we are much indebted for his description of the chronic ulcer of the stomach, we shall find (plate 5, livraison 10) a somewhat similar ulceration, about one-fourth of an inch broad, running round the mucous membrane of the duodenum, close to the pylorus.

The escape of the gaseous and fluid contents of the stomach is usually owing to the ulcer, causing by perforation a round opening; but in this case it was caused by a rupture of the salutary adhesions of the stomach to the liver, which last had for a time propped up and supported the parietes of the stomach when weakened by ulceration. Death did not arise from inflammation ; there was not time for this, as the patient only lived one hour and a half after the rupture of the adhesions ; neither was it from collapse or hemorrhage. It would appear to me that the more immediate cause of death was the result of the inordinate extrication of gas from the mucous membrane of the stomach and intestinal canal. This air over-distended all the parietes of the abdomen, and pushed up the diaphragm in such a manner that respiration could not be carried on. In fact, the air was disengaged with such rapidity, and in such a volume, that it made its escape in all directions, retained only by the skin; penetrating through the different openings in the diaphragm, and ascending the neck, it distended the eye-lids, and infiltrated the areolar membrane in front of the thorax, even beneath the clavicles.

A few hours after death, and long before there was any evidence of putrefaction, the peculiar crackling feel belonging to emphysema was noticed by Dr. Barker, Mr. Williams, and myself. It is singular, that in one of Cruveilhier's cases of death after ulceration of the stomach, *he* also noticed a similar phenomenon; although, in his case, the emphysema did not appear to be the immediate cause of death.

For the last thirteen years that the patient had been affected with this slow chronic ulceration of the mucous membrane of the stomach, it is not likely that the disease had been uniformly progressive in its course; on the contrary, we have, I think, good reason to infer that, although the disease always existed ever since its first commencement, still the ulcerative process did now and then stop in its course, if cicatrization did not partially take place; and we can thus account for the intervals of comparative health he seemed occasionally to enjoy ; such an interval, for example, as that which lasted for so long a period as six months, after his return from Carlsbad.

Treatment.—As to the medical treatment, it must be confessed that it was only so far beneficial as occasionally to palliate the sufferings of the patient, and to relieve the pain in the epigastric region,

coming on in paroxysms; for these the treatment was confined to the exhibition of large doses of opium, or of the solution of morphia.

The patient had remarked, that one of his most distressing symptoms was the constipation of the bowels, which almost habitually existed; this he successfully contended against for one year, by having administered to him daily, after his breakfast, a terebinthinate enema, from which proceeding he considered he derived some advantage; and when the bowels were manageable in this way, he thought he suffered less from vomiting. Instead of the enema, he latterly obtained the object in view by taking every day an aperient electuary.

The vomiting, he often thought, gave him relief, and he himself sometimes even mechanically irritated the fauces to induce it. As to the distressing tympany which usually succeeded the evacuation of the contents of the stomach, he derived no relief from the means usually resorted to, such as the aromatic spirit of ammonia, Hoffman's anodyne liquor, camphor mixture, brandy in small doses, &c., &c.

When the hematemesis and melenous stools came on, acetate of lead and opium, with the ordinary mixture of infusion of roses and diluted sulphuric acid, were taken, and subsequently gallic acid; and while he was taking this last medicine, the hemorrhage ceased.

How far this or the nitrate of silver may have been really beneficial to the patient or not, we cannot speak positively; all we know is that he appeared to be temporarily improved while the means were being used to meet the indications which presented themselves.

For the last half-hour of the patient's life, he suffered greatly from a gradually increasing dyspnœa and over-distention of the abdominal parietes,—the result of effusion of air, &c., into the general peritoneal cavity,—produced by the forced elevation of the diaphragm; indeed, it was plain that, from these causes, death by asphyxia was impending, and under such circumstances it might be asked, could not an opening, made through the parietes of the abdomen, have afforded some ease to the sufferer in his last moments? To which I would reply, that there may be some truth in the observation, but that, for my own part, I confess I feel but little reason to regret that I had not actively interfered under the circumstances above stated; for while, on the one hand, I am persuaded such an operation could at best have afforded but momentary relief, on the other, I should have run the risk of bringing surgery into disrepute by any active interference at such a crisis; because, under all the circumstances, a fatal result from rupture of the stomach, which we knew to have occurred, was not only inevitable, but to be almost immediately expected.

Case of Femoral Aneurism cured by Pressure. By W. Colles, F. R. C. S. I., Surgeon to Steevens' Hospital. Reported by Mr. Montgomery.

John Scott, an intelligent, healthy-looking man, aged 29, a glass-blower, was admitted into Steevens' Hospital, Jan. 5, 1851, on the recommendation of my friend, Mr. Fleming. He states that, with the exception of an attack of syphilis, for which he was salivated, five years since, he has always enjoyed perfect health; for the last year he has been a teetotaller, but previously to that time he was in the habit of drinking freely; he, however, remarked "that latterly his wind was not as good as others" employed in the same laborious trade. On December 21, after a hard day's work, he felt a tremor in the right leg; he is certain that no tumour or extraordinary pulsation existed there at that time.

On December 23 he first perceived the tumour, after suffering agonizing pain in the thigh and down the limb. Since then the pain continued, attended with numbness of the leg and foot preventing any motion.

On examination, a tumour about two inches long and one and a half broad was felt at the junction of the lower and middle third of the femoral artery. It is soft and compressible, expanding and contracting synchronously with the pulse in the artery. It does not give the definite rounded sensation of a tumour lying over the artery, as is generally perceived in aneurisms in this situation, but seems rather to be a dilatation of the tube itself, which can be traced anteriorly and laterally, gradually expanding, and again gradually contracting to resume its former size. The artery would seem to enter and pass from the centre of the tumour. There is slight œdema, with coldness and numbness of the leg and foot. There does not seem on physical examination to be any abnormal condition of the heart or great vessels, except, perhaps, some tumultuous action of the abdominal aorta. He was admitted into hospital on the 5th January, kept in bed, and subjected to sedative treatment, until the 12th, when pressure was applied by means of Mr. Read's pelvic instrument. As the pain attending the pressure was so severe, requiring the constant change of the position of the pad, and he had not himself that knowledge of the principles of cure which so materially assist the treatment, the pressure was not very steadily or efficaciously applied until the 26th; still during that time it was found that the tumour became smaller and harder as if consolidation were commencing. On the 26th he was removed to a private room, watched more carefully, and pressure more effectually applied by means of two instruments, one Read's pelvic compressor, with Dr. Carte's elastic bands, at the groin, and another circular one lower down. He could himself now command the circulation while changing the instruments, which, from the severe pain caused, required to be done every hour, or sometimes even every half-hour.

The pressure at the groin, however, commanded the circulation more easily, and with much less pain, than that lower down.

February 12, eighteenth day. On loosening the pad the pulsation can be felt at the tumour, which, however, at present is small and hard. He has now become impatient, suffering so much pain, and despairing of a cure by the pressure, that it is with difficulty he can be prevailed upon to continue the treatment. He seems to be in a state of excitement; his arteries, especially the femoral, beating turbulently.

February 17, twenty-third day[a]. The cure is now complete, and he says that he was quite aware of the moment in which the perfect obliteration of the artery occurred. The pressure was continued two days longer, and the limb was kept quiet for a fortnight afterwards, before he was allowed to use it.

I have seen him since, and the tumour is quite hard, about the size of a marble; the artery can be traced pervious to the tumour, but not beyond it.

There are a few points in this case worthy, I think, of remark. First, from the peculiar nature of the tumour it had every appearance of being that form of aneurism described by Breschet as the "fusiform," a dilatation of the entire circumference of the artery at one part of its course, all the coats remaining perfect. This form of aneurism is one which Breschet says is least favourable to the cure by ligature; a form in which we do not often find those layers of fibrine or coagula, which so materially contribute to the consolidation of the tumour, and, therefore, a form of aneurism least likely to terminate without the assistance of art, by the so-called "spontaneous cure." For these reasons, also, it was a form in which the pressure cure did not hold out much prospect of success; so that, although it was resolved to give the pressure a fair trial, yet it was not with any favourable anticipation of so fortunate a result. It is also worthy of remark that in a very short space of time there was an alteration apparent in the tumour, which became harder and smaller after the irregular pressure applied during the first three or four days; yet afterwards, when the pressure was more regular and uniform, the progress towards cure seemed stationary, the artery remaining pervious, and even acting more violently than usual, the day previous to its final obstruction; so that, notwithstanding the progress to cure may seem stationary, yet, if we find at any time any improvement has occurred, or even that the disease has not become worse, it should encourage us to persevere, with a confident expectation that some progress is still going on towards the cure, though it may escape the scrutiny of our senses.

In all the cases I have seen the patient suffered considerable pain; with this man the suffering was, however, more than usual. The pain he very accurately divided into two distinct kinds, one, the

[a] The twenty-third day from the application of the two instruments; the thirty-seventh day from the commencement of the treatment.

pain generally attending aneurism, here aggravated by the pressure both of the instrument and the tumour, and referred to the knee, foot, and leg. This pain is not relieved by time, but generally increases in severity, especially a day or two before the final cure. The pain, with the accompanying œdema and coldness of the leg and foot, can only be relieved by the application of the flannel rollers and attention to the positions of the limb. The other kind of pain was a burning or scalding sensation, limited to the part of the integuments on which the pad pressed, which increased in severity to such an extent as to require the position of the pad to be altered every hour, or even at times every half-hour. The pain, which we must have expected to find, as being so essentially necessary to the preservation of the vitality of the part subject to pressure, may be mitigated by attention to the smoothness or dryness of both surfaces, the dusting the part with absorbing powders, or the interposition of a piece of smooth kid-skin between the pad and the integuments. In a similar case I would suggest the application of a thick coating of collodion, as likely to answer all purposes.

From the peculiar nature of the aneurism, this was a severe trial of the pressure cure; and when we consider its success, and that the average of the number of cases already cured by pressure exceeds the number cured by the operation, I should say we have for the relief of external aneurism a plan of treatment more effectual and less dangerous than the ligature, and that a surgeon is scarcely justified in subjecting his patient to a dangerous operation until he has given the simple, harmless, although painful treatment by pressure a fair and sufficient trial.

SELECTIONS FROM BRITISH AND FOREIGN PERIODICALS.

Observations on Ozæna and its Treatment. By M. Max Simon.

Authors have justly attributed to various causes the fetid odour imparted, under certain circumstances, to the air, in its passage through the anfractuosities of the nasal fossæ. Sometimes the mucous membrane is the seat of one or more ulcerations, and in some cases these ulcerations are not confined to the mucous membrane, but extend still more deeply; sometimes there is malformation of the nose, either congenital or acquired, opposing the free escape of the nasal mucus; while in other cases nothing is found in the mucous membrane but the signs of a simple chronic inflammation. Can ozæna, taking this term in its etymological sense, exist apart from the conditions which we have just enumerated? This question we propose briefly to consider in the present notice.

The most superficial observation is sufficient to discover that, in the economy, certain secretions become so modified that the liquids of which they are composed exhale an odour more or less fetid, and varying according to the parts in which they are observed. Thus in some, in spite of the most minute attention to cleanliness, the perspiration of the feet exhales a repulsive odour; thus also in some, —and I do not now speak of red-haired people, in whom this occurs normally,—the exhalation from the axilla is, under certain circumstances, extremely offensive; thus, finally, not to prolong this enumeration unnecessarily, some females, at the time of menstruation only, have an insupportably disagreeable breath. In these different examples, the various lesions, the particular local alterations, or the exceptional hygienic conditions, which explain, in a great number of cases, the abnormal phenomenon under consideration, do not exist. To what cause, then, must we refer this fetor, in the particular conditions which we have supposed. Surely it will not be admitted that in these cases the different secretions with which the fetid effluvia are combined, have been altered or depraved by inflammatory action. Nothing is to be found in the organs eliminating them indicating a lesion of this nature. There is in these several cases a perversion of secretion, not the less real that the manner of its occurrence is unknown, which can only be referred to an inflammatory process by a pure hypothesis that observation refuses to verify. The consideration of these facts has led me to inquire if ozæna does not take place in some cases independently of any local lesion. It is indisputable, in the first place, that ulceration of the nasal mucous membrane, often met with in this disease, whether it be syphilitic or otherwise, is not the cause of ozæna properly so called. This is decidedly proved by the fact, that we not unfrequently meet with patients affected with ozæna in the highest degree, in whom the most attentive examination has failed to discover any such lesion.

MM. Cazenave (of Bordeaux), Trousseau, and Lagneau, have quoted or observed instances in which this was the case. On the other hand, when the lesion is more serious, when the disease, penetrating more deeply, has attacked the nasal bones, when these parts have actually become carious, the odour of caries exists, but does not completely overcome the original fetor. I believe, with M. Trousseau, that in these cases the fetor depends on a vitiated secretion, and that it manifests itself independently of the various local lesions with which it co-exists, at least thus far, that it is not produced directly by these lesions.

Now, admitting that ozæna results from an alteration occurring in the secretion of the nasal mucous membrane, must we at the same time admit that this alteration depends invariably on a previous irritation of the membrane? In other words, setting aside cases of specific infection, or of congenital or acquired mechanical alteration of the nasal cavity, is ozæna always, from the very commencement, a chronic coryza? In the first chapter of the interesting memoir on ozæna, published by M. Cazenave, this distinguished physician

incidentally broaches this question. On this point he says:—"The exploration of the nasal fossæ by the ordinary means is so difficult, that it is nearly impossible, in the great majority of cases, to know if the patients who have an offensive odour proceeding from the nose owe it to a faulty conformation of the organ (many people with flattened noses are not afflicted with this disgusting infirmity), to a prolonged retention of the nasal mucus in the sinuses, the spongy bones, or the nasal passages, to ozæna, to caries, or, lastly, to a faulty and constitutional secretion of the olfactory membrane, having some analogy, but in this respect only, with the tainted perspiration from the feet of certain individuals, and the odour peculiar to negroes and red-haired people or to those of very decidedly fair complexion. The difficulty of this exploration constantly baffles both diagnosis and treatment." The writer thus clearly proposes the question that I have just now submitted, but he forgets it in the course of his memoir, where ozæna, when it is not syphilitic or a purely mechanical result, is constantly represented by him as a consequence, or rather as an unusual symptom of chronic coryza. I believe, for my part, that this doctrine, which accounts very well for most cases of ozæna, does not include them all; and that observation discloses a certain number in which ozæna is really caused by an abnormal and constitutionally depraved secretion of the olfactory mucous membrane. Of this the following is an example:

Mdlle. Clem. M., aged fourteen years, whose constitution was rather delicate until about a year ago, when menstruation was established, has exhibited, during many years that she has been under my care, the symptoms of ozæna in a very decided degree. In tracing, so far as I have been enabled to do, the origin of this serious infirmity, I have remarked nothing which could account for it. The nose, examined frequently both externally and internally, exhibited no sign of irritation of the mucous membrane. This membrane is rather pale than congested; it does not show in any of its visible portions the least thickening, much less could the most attentive and frequently repeated examination reveal any trace of ulceration. The secreted mucus does not present in appearance any difference from that observed in non-ozænic individuals; the quantity secreted is most generally inconsiderable; sometimes it is increased, but without any symptom to show that this temporary hyper-secretion is connected with local irritation. By the greatest attention to cleanliness, the intensity of the fetor has been diminished; but, notwithstanding that different means have been successively tried, consisting chiefly in injections of various kinds, the disease obstinately resisted treatment. Although I thought it right to assure her parents, before the menses were established, that it was, in my opinion, useless to try other means, and that we should trust to nature to overcome this serious infirmity,—that it was only necessary to assist her efforts, by keeping the child on nourishing diet, and in a warm and lightsome atmosphere, to counteract the chlorotic state of the skin and the general debility of the constitution,— they thought it prudent

to consult M. Guersant, Sen., who confirmed my opinion, and recommended, in addition, injections with rhatany, salt water baths, and the internal use of iodide of potassium. These means were perseveringly employed, but, I must confess, without much success. Meanwhile Mdlle. M. reached the period at which menstruation became established. Under the influence of this constitutional change, as often happens when no lesion exists to impede the establishment of the function, the whole organism became duly strengthened; Mdlle. M. sprang up, a more plastic blood produced a firmer and better developed muscular system; her figure, hitherto bony, became rotund; her complexion brightened; her skin looked clearer; and at the same time that this transformation, if I may so speak, was going on, the ozæna sensibly diminished, and finally disappeared fifteen or eighteen months after the perfect development of puberty.

M. Cazenave (of Bordeaux), who, as I have already stated, has successfully studied this disease, makes use of an instrument to explore the nasal passages, so as to ascertain whether any ulceration exists which may, according to him, explain the production of the fetid odour. This instrument is a sort of blunt hook, which he moves over the internal surface of the nostrils, and which is caught by the edge of the ulceration when it exists. I confess that neither I nor M. Guersant employed this instrument in the above case, because I am convinced that when a lesion of this kind has long existed, it is impossible that it should not manifest itself by some evidence which was not present in this case. Another reason which prevented me from using this exploration was, that this young lady had long had a blister on her arm, the serum from which exhaled exactly the same odour as that communicated from the nasal fossæ; it was, in some sense, an ozæna of the arm. No one acquainted with this fact, therefore, could doubt that this symptom was constitutional, and had not its origin in a local lesion.

I will make one remark more on this case. The mother of this young girl is likewise affected with a similar infirmity, and, in a great measure, prevents it from being observed by extreme attention to cleanliness. However, there is this difference between her and her daughter, that the nose of the latter is regularly formed, while the mother's is decidedly flat. In such cases, I do not hesitate to explain the ozæna by this vicious conformation, which obstructs the flow of the pituitary mucus, and thus causes it to stagnate and assume a fetid odour. This explanation, however, if not merely specious, would, it will be admitted, be inapplicable in many cases. Thus as MM. Cazenave and Trousseau observe, and as all physicians may likewise have noticed, if we meet flat-nosed people who suffer from ozæna, we meet a much greater number who do not. This mechanical peculiarity, then, is not in itself sufficient to produce the effect under consideration. I know that it may be urged that flat-nosed people affected with ozæna are those who, while they present this deformity, are subject to a superabundant secretion of nasal mu-

cus, while non-ozænic flat-nosed individuals are not. This is an objection which immediately occurs, and which I have no wish to omit; but I am not able to say whether it is supported by observation or not. If experience shall not confirm this remark, which is so far quite hypothetical, the fact I have quoted would have another import besides that I have given it; it would tend to prove that, in some cases, ozæna depends not only on general undefined conditions of the organization, but that it may be transmitted hereditarily along with this peculiarity of organization.

Further, we must not confound a merely transient and unusual odour of the nasal mucus with ozæna. There are individuals who, without any attack of coryza, either acute or chronic, are liable, during a longer or shorter period, to an increased secretion from the nasal membrane. In such cases of hyper-secretion, it sometimes happens that the mucus is characterized by an unusual smell. For example, I am acquainted with a young man who, without any determination of blood to the Schneiderian membrane, occasionally removes with the handkerchief a thick mucus, exhaling a very decided spermatic odour; and a young girl, whom I have also sometimes occasion to see, presents the peculiarity of exhaling, from time to time, from the nose, a truly ozænic odour; and yet, without her paying the least attention to it, or even employing any additional means of cleanliness, this odour disappears. I have not remarked whether there is any coincidence between menstruation and the production of these fetid effluvia: this would be a point worthy of notice.

No one, who has not had the opportunity of proving it, can imagine to what a degree a person affected with a true ozæna infects the air of an apartment in which he has stopped during even a short space of time. M. Trousseau says, that having one day received in his study, for a few minutes only, a young girl afflicted with such an infirmity, he was obliged to let fresh air into the room. I know a poor child who cannot remain in one room for a quarter of an hour, without the people in the apartment being exceedingly inconvenienced. I refer to these facts, to show the necessity of radically remedying, if possible, so disgusting an infirmity, which, in a certain class, obliges those who have the misfortune to suffer from it to withdraw from society.

When the disease is connected with the general state of the constitution, although we cannot exactly say what the nature of this connexion is, we can by topical applications do little more than palliate, and must therefore endeavour to alter the state of the system at large. When, on the contrary, the malady is connected with a local disease, we must undoubtedly have recourse to the modifier, *par excellence*, of diseased tissues, that is to say, to the nitrate of silver. M. Cazenave has brought forward on this subject facts which leave no doubt as to the efficacy of this remedy. It is superfluous to add, that in cases of syphilitic complication, mercury with iodide of potassium must become, according to circumstances, our sheet anchor.

But we must not forget that this malady, whether it be organic or merely functional, is, for those who are affected by it, a serious infirmity, which, if we cannot radically cure, we can at least alleviate. This palliative method of treatment consists in the strictest attention to cleanliness. Patients ought to employ frequent injections of the nose, or, what is perhaps better, they ought frequently to snuff pure water, or an aromatic water, such as distilled rose or jessamine water. They ought, at the same time, to avoid everything which can augment the nasal secretion; for it has been observed, that the more abundant this secretion is, the more decided is the ozænic odour. Sauvages prescribed in such a case the use of tobacco. This remedy might, perhaps, in some cases, beneficially modify or mask the symptoms; but it is to be feared that more frequently, in disguising the odour, it would aggravate the evil. The simple plan has sufficed, in a few cases, to restore to society individuals, especially females, whom this wretched disease had consigned to solitude.—*Bulletin Générale de Therapeutique*, July, 1850.

Case of Wound of the Head. By Dr. Horlancher.

The following case is remarkable, not only because it shows that the loss of a certain amount of cerebral matter may take place without exercising any influence on the intellectual functions, but also as a very rare example, in other respects, of injury of the head, which, notwithstanding its apparent gravity, neither gave rise to any reaction, nor in any way disturbed the health of the sufferer.

A boy aged sixteen years, having discharged a gun which had probably been overloaded, it burst, and the screw of the breech entered his forehead and penetrated to a considerable depth. The screw was immediately extracted, and an abundant hemorrhage followed. The wound, which was situated about an inch above the root of the nose, was round, and was about nine lines in diameter. It discharged coagulated blood and cerebral matter. The little finger could easily be introduced to the depth of two inches, so as to touch the substance of the brain. Seven splinters of bone, of various sizes, along with portions of the dura matter, were extracted. During the first fifteen days after the accident, seven other small splinters were discharged, with a great quantity of whitish, cream-like pus. Subsequently, another splinter presented itself between the edges of the wound, but it was so large that it could not be extracted until after the lapse of a month. After that time the wound closed and completely cicatrized. The treatment consisted simply in cold applications, kept up for several weeks, with a light bandage. It is remarkable that the patient, from the time of the accident to the healing of the wound, was free from fever, and did not experience the least alteration in his animal or sensorial functions.—*Il Raccoglitore Medico di Fano*, 31st January, 1851, p. 73.

On a certain and constant Diagnostic between vital and Post-Mortem Burning, with some Directions for the due Investigation of this Question. By Dr. Giuseppe Piretti.

Having considered the various tests already suggested by science for deciding whether combustion has taken place in the living or the dead body, the author adduces others which are fully established by the facts he brings forward. Accidental or criminal burning, produced in the living body, besides being distinguished from spontaneous combustion and from death by lightning by characters well known to science, may also be diagnosed from that which has taken place in the body after death, by various sufficiently evident external and internal marks. He details such characteristics, and among the external produced by burning in the living body, he remarks the red lines on the skin surrounding the burns, and the blackness of the blood, which demonstrates a change effected in its normal condition by the heat. These lines, he observes, are not removed by the pressure of the finger. The changes he detailed could only, he states, take place under vital influence. He also describes the internal characters, which, according to him, consist in inflammatory and gangrenous spots scattered over the internal surfaces of the serous membranes, especially on those which cover the organs contained in the cavities. These phenomena, he adds, ought to be considered as quite characteristic of criminal or accidental burning, because they are never present where combustion has taken place in the dead body; and he asserts that, even if all the external signs enumerated by him be thought insufficient to establish the distinction, the internal inflammatory or gangrenous marks certainly cannot mislead; and that therefore he is entitled to conclude that the objections of those who hold these signs to be doubtful and insufficient to solve this important medico-legal question are untenable.—*Il Raccoglitore Medico di Fano*, 15th January, 1851, p. 35.

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